Docket:	:	A.09-07-001
Exhibit Number	:	
Commissioner	:	John Bohn
Admin. Law Judge	:	Jeffrey O' Donnell
DRA Project Mgr.	:	Patrick Hoglund

1
2

DIVISION OF RATEPAYER ADVOCATES
CALIFORNIA PUBLIC UTILITIES COMMISSION

REPORT ON THE RESULTS OF OPERATIONS IN BEAR GULCH DISTRICT OF CALIFORNIA WATER SERVICE COMPANY

Test Year 2011 and
Escalation Years 2012 and 2013
Application 09-07-001

For authority to increase water rates located in its
Bear Gulch District serving the Cities of Menlo Park
and Redwood City, the Towns of Atherton, Woodside, and
Portola Valley and unincorporated areas in San Mateo County.

San Francisco, California
February 10, 2010

1

TABLE OF CONTENTS

MEMORANDUM

The Division of Ratepayer Advocates ("DRA") of the California Public Utilities Commission ("Commission") prepared this Report in California Water Service Company's ("CWS") rate case proceeding A.09-07-001. In this docket, the Applicant requests an order for authorization to increase rates charged for water service by $4,681,000 or 17.4 % in Test year 2011; by $909,200 or 2.9% in Escalation year 2012; and by $909,200 or 2.8% in Escalation year 2013 in its Bear Gulch District service area. The applicant requests adoption of a rate of return of 8.58% from D. 09-05-019. DRA presents its analysis and recommendations associated with the Applicant's request in this Report.

Patrick Hoglund serves as DRA's project coordinator in this review, and is responsible for the overall coordination in the preparation of this report. Appendix A contains witnesses' prepared qualifications and testimony.

DRA's reports on payroll, conservation expenses and special requests are included under separate Reports.

DRA's Legal Counsels for this case are Selina Shek, Allison Brown, and Hien Vo.

EXECUTIVE SUMMARY

CWS requests increasing rates by 17.4% in Test Year 2011 and 2.9% in Escalation Year 2012, whereas DRA recommends an increase of 5.7% in Test Year 2011 and inflationary increases for the Escalation Years.

Key Recommendations

DRA recommends that CWS' requested rate of return of 8.58% be adopted in this proceeding.

DRA's recommendations are based on lower total sales (Chapter 2), lower estimates of Operation and Maintenance expenses (Chapter 3), lower estimates of Administrative and General expenses (Chapter 4), lower Plant additions (Chapter 7) and lower Ratebase (Chapter 9).

DRA addresses its recommended treatment of CWS' 30 Special Requests ("SR") in a separate report. That report discusses Special Request #4 regarding the true up of interim rates for the Bear Gulch District.

List of DRA Witnesses and Respective Chapters

Chapter Number	Description	Witness
-	Executive Summary	
1	Overview and Policy Introduction and Summary of Earnings	Patrick Hoglund
2	Water Consumption and Operating Revenues	Lisa Bilir Zachary Burt
3	Operations and Maintenance (except Payroll) Expenses	Pat Ma
4	Administrative & General (except Payroll & Conservation) Expenses	Cleason Willis
5	Taxes Other Than Income	Jerry Oh
6	Income Taxes	Jerry Oh
7	Utility Plant in Service	Isaiah Larsen
8	Depreciation Reserve and Depreciation Expense	Isaiah Larsen
9	Ratebase N/G multiplier	Isaiah Larsen Richard Rauschmeier
10	Customer Service	Toni Canova
11	Rate Design	Lisa Bilir
12	Water Quality	Pat Ma
13	Step Rate Increase	Patrick Hoglund

CHAPTER 1: OVERVIEW AND POLICY

A. INTRODUCTION

This Report sets forth DRA's analysis and recommendations for A. 09-07-001, CWS' general rate increase request for Test Year 2011 and Escalation Years 2012 and 2013.

B. SUMMARY OF RECOMMENDATIONS

Tables 1-1 through 1-3 of the Summary of Earnings compare the results of operations for Test Year 2011 including revenues, expenses, taxes and ratebase.

C. DISCUSSION

CWS requests the total revenues as follows:

Year	Amount of Increase	Percent
2011	$4,681,000	17.4%
2012	$ 909,200	2.9%
20113	$ 909,200	2.8%

CWS estimates that its proposed rates in the Application will produce revenues providing the following returns:

Year	Return on Rate Base	Return on Equity
2011	8.58%	10.2%
2012	8.58%	10.2%
2013	8.58%	10.2%

D. CONCLUSION

DRA recommends a revenue increase for the Test Year as follows (Escalation Years 2012 and 2013 are covered in Chapter 12):

Year	Amount of Increase	Percent
2011	$1,476,000	5.7%

D.06-08-011 authorized the last general rate increase for CWS in A. 05-08-007, resulting in a rate of return on rate base of 8.52% in 2006-2007. Present Rates in this report are based on Advice Letter No.1931, which became effective July 1, 2009 as authorized by D. 07-05-062.

A comparison of DRA and CWS' estimates for rate of return on rate base for the Test Year 2011 at present and the utility's proposed rates is shown below:

RATE OF RETURN

	DRA	CWS	Diff
Present Rates	6.64%	3.59%	-3.05%
Proposed Rates	13.19%	8.58%	-4.61%

TABLE 1-1

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

SUMMARY OF EARNINGS

TEST YEAR 2011

(AT PRESENT RATES)

Item	DRA Estimate	CWS Estimate	CWS exceeds DRA Amount	%
	(Thousands of $)			
Operating revenues	25,705.1	26,899.9	1,194.8	4.6%
Operating expenses:				
Operation & Maintenance	14,177.6	15,834.7	1,657.1	11.7%
Administrative & General	1,653.5	1,818.4	164.9	10.0%
G. O. Prorated Expense	2,668.3	3,596.1	927.8	34.8%
Dep'n & Amortization	2,201.9	2,392.6	190.7	8.7%
Taxes other than income	848.2	1,002.9	154.7	18.2%
State Corp. Franchise Tax	185.3	(37.0)	(222.3)	-120.0%
Federal Income Tax	989.1	222.3	(766.8)	-77.5%
Total operating exp.	22,724.0	24,830.1	2,106.1	9.3%
Net operating revenue	2,981.1	2,069.8	(911.3)	-30.6%
Rate base	44,888.8	57,702.5	12,813.7	28.5%
Return on rate base	6.64%	3.59%	-3.05%	-46.0%

TABLE 1-2

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

SUMMARY OF EARNINGS

TEST YEAR 2011

(AT UTILITY PROPOSED RATES)

Item	DRA Estimate	CWS Estimate	CWS exceeds DRA Amount	%
	(Thousands of $)			
Operating revenues	30,696.4	31,580.8	884.4	2.9%
Operating expenses:				
Operation & Maintenance	14,182.3	15,839.6	1,657.3	11.7%
Administrative & General	1,653.5	1,818.4	164.9	10.0%
G. O. Prorated Expense	2,668.3	3,596.1	927.8	34.8%
Dep'n & Amortization	2,201.9	2,392.6	190.7	8.7%
Taxes other than income	890.8	1,042.8	152.1	17.1%
State Corp. Franchise Tax	622.4	373.1	(249.3)	-40.1%
Federal Income Tax	2,555.5	1,567.6	(987.9)	-38.7%
Total operating exp.	24,774.6	26,630.2	1,855.6	7.5%
Net operating revenue	5,921.8	4,950.6	(971.2)	-16.4%
Rate base	44,888.8	57,702.5	12,813.8	28.5%
Return on rate base	13.19%	8.58%	-4.61%	-35.0%

TABLE 1-3

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

SUMMARY OF EARNINGS

TEST YEAR 2011

(DRA ESTIMATES)

Item	DRA Est. @ Present Rates	@ Rates Proposed by DRA	Proposed Exceeds Present Amount	%
	(Thousands of $)			
Operating revenues	25,705.1	27,181.1	1,476.0	5.7%
Operating expenses:				
Operation & Maintenance	14,177.6	14,179.0	1.4	0.0%
Administrative & General	1,653.5	1,664.8	11.3	0.7%
G. O. Prorated Expense	2,668.3	2,668.3	0.0	0.0%
Dep'n & Amortization	2,201.9	2,201.9	0.0	0.0%
Taxes other than income	848.2	848.2	0.0	0.0%
State Corp. Franchise Tax	185.3	314.7	129.4	69.8%
Federal Income Tax	989.1	1,452.7	463.6	46.9%
Total operating exp.	22,724.0	23,329.6	605.6	2.7%
Net operating revenue	2,981.1	3,851.5	870.3	29.2%
Rate base	44,888.8	44,888.8	0.0	0.0%
1 Return on rate base	6.64%	8.58%	1.94%	29.2%

CHAPTER 2: WATER CONSUMPTION AND OPERATING REVENUES

A. INTRODUCTION

This chapter presents DRA's analysis and recommendations regarding the forecasted number of customers, water sales and operating revenues for CWS' Bear Gulch district. Bear Gulch had an average of 18,075 service connections in 2008; the Bear Gulch district includes the communities of Atherton, Menlo Park, Portola Valley, Woodside, and vicinity, in San Mateo County and the Skyline service area in San Mateo County. DRA reviewed CWS' data responses, testimony, application, and workpapers before formulating its own estimates.

B. SUMMARY OF RECOMMENDATIONS

DRA adhered to the methods outlined in the Rate Case Plan ("RCP") in DRA's analysis of sales forecast and revenues. Whereas, CWS' sales forecast method differed from the RCP. Appendix A to Chapter 2 for DRA's Bakersfield report provides a detailed explanation of DRA's sales forecast and revenue methods. The Commission should uphold the methods outlined in the RCP by adopting DRA's recommendations presented in this report.

1) Average Active Service Connections

The Commission should adopt DRA's recommended number of service connections. The primary difference between DRA and CWS' recommendations is that CWS proposes to forecast the number of customers using the five-year average change in the number of customers by customer class for 2004-08 for the Industrial, Public Authority and Other customer classes. CWS states that due to the reclassification of customers in 2008, the four-year average for 2004-2007 for the Residential, Business and Multifamily customer classes is appropriate. Since the 2008 reclassification applied to all customer classes, DRA recommends

forecasting the number of customers using the average change in the number of customers for the years 2004-2007 for all customer classes.

2) Metered Sales and Supply

The Commission should require CWS to use the method proposed by DRA for residential and business customers, in accordance with the RCP, going forward, and should also adopt DRA's estimates for metered sales and supply in this case. Table 2-1 at the end of this chapter illustrates DRA and CWS' proposed sales per average customer for each customer class. DRA uses the same general methodology as CWS to estimate multiple regression equations in accordance with the RCP and the "New Committee Method" ("NCM"). As is outlined in the NCM, rain, temperature and time are included in the regression model, where possible. The primary difference between DRA and CWS' forecasts are that CWS used the regression equations to calculate weather-adjusted recorded sales from 2008 and used this as its estimated sales for 2011. DRA used the regression equations to calculate forecasted sales for 2011 and 2012, based on the 30-year monthly average rain and temperature, in accordance with the RCP.[1]

3) Operating Revenues

The Commission should adopt DRA's estimates for operating revenues. DRA uses the same method as CWS to calculate operating revenues, although DRA presents the operating revenues differently for illustrative purposes (see Appendix A to Chapter 2 for DRA's Bakersfield report in section B. 1. and B. 2. for the complete explanation).

4) Unaccounted for Water

CWS estimates 5.02% unaccounted for water in Bear Gulch and DRA agrees.

[1] D.07-05-062, Appendix A – Rate Case Plan and Minimum Data Requirements for Class A Water Utilities General Rate Applications, p. A-23, footnote 4, (B) "Use 30-year average for forecast values for temperature and rain"

C. DISCUSSION

1) Average Active Service Connections

Customer growth is the forecasted growth of a customer base in a given area. CWS and DRA use customer growth to project revenues for 2011-2012. The RCP, adopted in D.07-05-062 requires the number of customers to be forecast using a five-year average of the change in the number of customers by customer class, unless an unusual event occurs, in which case an adjustment to the five-year average may be made.[2] Table 2-2 and 2-3 at the end of this chapter summarize DRA and CWS' proposed average number of customers for each customer class in 2011 and 2012, respectively.

a. Residential, Business, Multifamily, Public Authority, Industrial, and Other

CWS proposes to forecast the number of customers using the five-year average of the change in the number of customers by customer class for Public Authority, Industrial and Other customer classes, and the four-year average for Residential, Business and Multifamily customer classes. However, because 2008 was an anomalous year in terms of customer reclassifications, DRA proposes to forecast the number of customers using the four-year average of the change in the number of customers by customer class (for the period 2004-2007) for all customer classes.

[2] D.07-05-062, Appendix A: RCP, p. A-23, footnote 4.

2) Metered Sales and Supply

Table 2-4 and 2-5 at the end of this chapter summarize DRA and CWS' proposed metered and flat rate sales in Bear Gulch for each customer class in 2011 and 2012, respectively.[3] DRA removed CWS' 1.5% conservation adjustment to consumption in 2012 and the reasons are described in Appendix A to the Bakersfield report, section A. 4.

a. Residential

DRA does not accept CWS' use of the unconstrained regression model. DRA found unsatisfactory statistical confidence for the coefficients estimated for the February and March temperature data. Likewise, when DRA used the constrained regression model, this yielded poor statistical confidence for the estimated time coefficient. DRA recommends the use of the modified constrained model (including temperature and rain, but not time) to forecast sales because it has good statistical results. In contrast, CWS used the unconstrained regression model, with two temperature variables dropped, to weather-normalize 2008 recorded sales. Workpaper Revenue-001 shows the regression model that DRA and CWS chose. The following table summarizes DRA and CWS' recommendations:

Table 2-a: forecasted sales (ccf[4]/service)

	CWS	DRA	% difference
2011	332.6	313.7	-5.7%
2012	327.6	313.7	-4.2%

[3] If DRA's sales forecast combined with DRA's other recommendations leads to higher bill increases than CWS presented in its notices to customers, DRA recommends that the total bill increases should be capped at CWS' proposed levels.

b. Business

CWS proposes to use the unconstrained regression model, with the addition of an auto-regressive term and three temperature variables dropped, to weather-normalize 2008 recorded sales for the Business customer class. However, DRA found unsatisfactory statistical confidence for the coefficients estimated for all of the temperature data and negative coefficients for November through May in the unconstrained model. DRA obtained good statistical confidence for all variables in the constrained regression equation (including temperature, rain and time), and therefore recommends that regression equation to forecast sales. Workpaper Revenue-001 shows the regression model that DRA and CWS chose. The following table summarizes DRA and CWS' recommendations:

Table 2-b: forecasted sales (ccf/service)

	CWS	DRA	% difference
2011	465.7	451.4	-3.1%
2012	458.7	447.7	-2.4%

c. Multifamily

Multifamily customers accounted for 1.57%[5] of metered sales for the Bear Gulch district in 2008. As CWS notes, the number of customers in this customer class changed from 63 at the end of year ("EOY") 2007 to 76 at the EOY 2008. Because of this change in the number of customers, CWS proposes to use 2008 sales per customer (1,397.6 ccf/service[6]) to project future use. While it is possible that the new customers in this customer class use significantly less water per customer, the use of a single year of data when a lot of customer reclassifications

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[4] 100 cubic feet

[5] Calculated from data in CWS' Table 4-C.

[6] See Report on Forecasts, Wendy Illingworth, p. 16 and "Bear_Gulch_exp_July_2009" Workpaper 4-D1, cells L:27 thru L:29. Note, a different 2008 usage per customer (1,445.1 ccf/service) is shown in the same workpaper, cell L:21 and it is unclear how CWS calculated the

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were occurring could underestimate the sales in this class.[7] A substantial underestimate of the sales forecast could lead to rates that are too high and ultimately this customer class could overpay for water service because WRAM overcollections are distributed to all customer classes, not just to the customer classes that overpaid. DRA ruled out the use of the regression models for this customer class because of poor statistics calculated in the unconstrained and constrained model. There is not enough evidence to exclude the 2008 sales data, however, to address the possibility of underestimating sales for this customer class, while still taking 2008 reductions into account, DRA proposes to forecast sales using the five-year average of sales in this customer class (1,643.8 ccf/service). This recommendation leads to an overall difference between DRA and CWS of 17.6% for the Multifamily customer class.

Table 2-c: forecasted sales (ccf/service)

	CWS	DRA	% difference
2011	1,397.6	1,643.8	17.6%
2012	1,376.6	1,643.8	19.4%

d. Industrial

For the Industrial customer class, CWS recommends the use of the unconstrained regression model, with the December and January temperature variables dropped, to estimate sales on a customer class basis. DRA found good statistical confidence for a modified unconstrained model (including monthly temperature variables and rain but not time) but a poor R-squared. DRA recommends the use of the five-year average of sales due to the poor explanatory

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2008 usage as 1,397.6ccf/service instead of 1,445.1 ccf/service.

[7] For example, if the customers were added to this customer class in August, and their sales only contributed to total sales for 4 months, while the average is calculated based on this number of customers for the entire year, this could underestimate sales per customer.

power of the model, in addition to the fact that this customer class contains only one customer.

Table 2-d: forecasted sales (Kccf / Industrial customer class)[8]

	CWS	DRA	% difference
2011	2.1	2.6	23.6%
2012	2.1	2.6	25.4%

e. Public Authority

Public Authority customers in the Bear Gulch district accounted for 2.3% of metered sales in 2008. CWS recommends the use of an unconstrained model, with several monthly temperature variables as well as the time variable dropped, to weather-adjust 2008 sales for the Public Authority customer class sales forecast. The number of customers changed substantially during 2008 from 96 at EOY 2007 to 115 at EOY 2008. DRA found poor statistical confidence from the unconstrained model, and poor statistical confidence for the time variable in the constrained model. DRA found good statistical confidence in the modified constrained model (temperature and rain but not time variables included). DRA recommends the use of the modified constrained model to forecast sales for the Public Authority customer class. Table 2-e below compares DRA and CWS' forecasted sales for the Public Authority customer class.

[8] The numbers in Table 2-d differ from the numbers in Table 2-1 because Table 2-d illustrates sales for the entire customer class, while Table 2-1 illustrates sales per average customer within each customer class. DRA and CWS forecasted sales for Industrial, Public Authority, and Other customer classes for the entire customer class, rather than for an average customer.

Table 2-e: forecasted sales (Kccf)[9]

	CWS	DRA	% difference
2011	137.3	121.3	-11.7%
2012	135.2	121.3	-10.3%

f. Other

DRA agrees with CWS' proposed method to use the five-year average sales for the Other customer class.[10]

3) Operating Revenue

Tables 2-6 and 2-7 at the end of this chapter summarize DRA and CWS' forecasted operating revenue at present rates in 2011, at CWS proposed rates in 2011 and at present rates in 2012, respectively.

a. Residential

CWS calculates operating revenue for residential customers by (1) taking the sum of estimated quantity revenues calculated for each meter size, for each month and for each tier of the increasing block rate design based on three-year average sales patterns and (2) adding this to the estimated service charge revenues, calculated by taking the average number of customers each year and multiplying it by the service charge. CWS' method is outlined in detail in Appendix A of Chapter 2 in DRA's Bakersfield Report. DRA does not recommend any changes to this method.

[9] The numbers in Table 2-e differ from the numbers in Table 2-1 because Table 2-e illustrates sales for the entire customer class, while Table 2-1 illustrates sales per average customer within each customer class. DRA and CWS forecasted sales for Industrial, Public Authority, and Other customer classes for the entire customer class, rather than for an average customer.

[10] However, CWS' stated five-year average (20.1 Kccf/customer class) differs from the five-year average presented in CWS' Workpaper 4-D2. DRA used CWS' reported five-year average from Workpaper 4-D2 (17.2 Kccf/customer class).

b. Business, Multifamily, Public Authority, Industrial and Other

CWS calculates operating revenues for Business, Multifamily, Public Authority, Industrial, and Other customers by (1) taking the sum of estimated quantity revenues for each meter size, for each month based on three-year average sales patterns and (2) adding the quantity revenues to the estimated service charge revenues, calculated by multiplying the forecasted average number of customers by the meter charges. CWS's method is outlined in detail in Appendix A to Chapter 2 of DRA's Bakersfield Report. DRA does not recommend any changes to this method.

4) Unaccounted for Water

CWS estimates 5.02% unaccounted for water in Bear Gulch based on the three-year average of the percentage of unaccounted for water from 2006-08. DRA accepts the proposed unaccounted for water estimate.

D. CONCLUSION

1) Average Active Service Connections

The Commission should adopt DRA's recommended number of service connections.

2) Metered Sales and Supply

DRA recommends adherence to the RCP and NCM for forecasting metered sales and supply and recommends that the Commission adopt DRA's forecasted sales estimates and require CWS to use the method proposed by DRA for residential and business customers going forward.

3) Operating Revenues

DRA accepts CWS' method for calculating operating revenues, with the following modifications for illustrative purposes: for all customer classes, DRA used the present rates given by CWS at the time it filed the GRC application to illustrate Operating Revenues at Present Rates for 2011 and 2012. Also, DRA

used the proposed rates from CWS' GRC application filed in July 2009 to calculate Operating Revenues at Proposed Rates. Appendix A to Chapter 2 for DRA's Bakersfield report in section B. 1. and B. 2. provides a detailed explanation.

4) Unaccounted for Water

CWS estimates 5.02% unaccounted for water in Bear Gulch and DRA agrees.

TABLE 2-1

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT
WATER SALES PER AVERAGE CUSTOMER

TEST YEAR 2011

Item	DRA	CWS	CWS exceeds DRA Amount	%
	(CCF/CONN./YR)			
Residential	313.7	332.6	18.9	5.7%
Business	451.4	465.7	14.3	3.1%
Multiple Family	1,643.8	1,397.6	(246.2)	-15.0%
Industrial	2,621.7	2,122.0	(499.7)	0.0%
Public Authority	1,054.4	1,098.5	44.1	4.2%
Other	637.0	914.4	277.4	43.5%
Irrigation	0.0	0.0	0.0	0.0%
Res. Flat Rate	0.0	0.0	0.0	0.0%

TABLE 2-2

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

AVERAGE NUMBER OF CUSTOMERS

TEST YEAR 2011

Item	DRA	CWS	CWS exceeds DRA Amount	%
Metered Connections				
Residential	16,335	16,335	0	0.0%
Business	1,374	1,374	0	0.0%
Multiple Family	76	76	0	0.0%
Industrial	1	1	0	0.0%
Public Authority	115	125	10	8.7%
Other	27	22	(5)	-18.5%
Irrigation	0	0	0	0.0%
Reclaimed	0	0	0	0.0%
Total metered connections	17,928	17,933	5	0.0%
Flat Rate Connections				
Residential Flat	0	0	0	0.0%
Private Fire Protection	271	271	0	0.0%
Public Fire Protection	14	14	0	0.0%
Total flat rate connections	285	285	0	0.0%
Total Active Connections				
Include Fire Protection	18,213	18,218	5	0.0%
Exclude Fire Protection	17,928	17,933	5	0.0%

TABLE 2-3

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

AVERAGE NUMBER OF CUSTOMERS

ESCALATION YEAR 2012

Item	DRA	CWS	CWS exceeds DRA Amount	%
Metered Connections				
Residential	16,366	16,366	0	0.0%
Business	1,379	1,379	0	0.0%
Multiple Family	76	76	0	0.0%
Industrial	1	1	0	0.0%
Public Authority	115	129	14	12.2%
Other	27	20	(7)	-25.9%
Irrigation	0	0	0	0.0%
Reclaimed	0	0	0	0.0%
Total metered connections	17,964	17,971	7	0.0%
Flat Rate Connections				
Residential Flat	0	0	0	0.0%
Private Fire Protection	277	277	0	0.0%
Public Fire Protection	14	14	0	0.0%
Total flat rate connections	291	291	0	0.0%
Total Active Connections				
Include Fire Protection	18,255	18,262	7	0.0%
Exclude Fire Protection	17,964	17,971	7	0.0%

TABLE 2-4

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

TOTAL SALES AND SUPPLY

TEST YEAR 2011

Item	DRA	CWS	CWS exceeds DRA Amount	%
	(KCCF/YEAR)			
Metered Sales				
Residential	5,124.9	5,433.0	308.1	6.0%
Business	620.2	639.9	19.7	3.2%
Multiple Family	124.9	106.2	(18.7)	-15.0%
Industrial	2.6	2.1	(0.5)	-19.1%
Public Authority	121.3	137.3	16.1	13.2%
Other	17.2	20.1	2.9	17.0%
Irrigation	0.0	0.0	0.0	0.0%
Reclaimed	0.0	0.0	0.0	0.0%
Total metered sales	6,011.1	6,338.7	327.5	5.4%
Flat Rate Sales				
Residential	0.0	0.0	0.0	0.0%
Unaccounted For Water 5.02%	317.9	335.2	17.3	5.5%
Total delivered	6,329.0	6,673.9	344.8	5.4%
Supply				
Purchased Water - SFPUC	5,835.0	6,179.9	344.9	5.9%
Surface Supply	494.0	494.0	0.0	0.0%
Total production	6,329.0	6,673.9	344.9	5.4%

TABLE 2-5

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

TOTAL SALES AND SUPPLY

ESCALATION YEAR 2012

Item	DRA	CWS	CWS exceeds DRA Amount	%
	(KCCF/YEAR)			
Metered Sales				
Residential	5,134.7	5,361.7	227.0	4.4%
Business	617.3	632.6	15.3	2.5%
Multiple Family	124.9	104.6	-20.3	-16.3%
Industrial	2.6	2.1	-0.5	-20.3%
Public Authority	121.3	135.2	14.0	11.5%
Other	17.2	19.8	2.6	15.2%
Irrigation	0.0	0.0	0.0	0.0%
Reclaimed	0.0	0.0	0.0	0.0%
Total metered sales	6,018.0	6,256.0	238.0	4.0%
Flat Rate Sales				
Residential	0.0	0.0	0.0	0.0%
Unaccounted For Water 5.02%	318.2	330.8	12.6	3.9%
Total delivered	6,336.2	6,586.8	250.6	4.0%
Supply				
Purchased Water - SFPUC	5,842.2	6,092.8	250.6	4.3%
Leased Wells	494.0	494.0	0.0	0.0%
Total production	6,336.2	6,586.8	250.6	4.0%

TABLE 2-6

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

OPERATING REVENUES

TEST YEAR 2011

(AT PRESENT RATES)

Item	DRA	CWS	CWS exceeds DRA Amount	%
	(Thousands of $)			
WRAM Revenues				
Residential	18,627.8	19,747.6	1,119.8	6.0%
Business	2,149.7	2,217.9	68.2	3.2%
Multiple Family	433.0	368.2	(64.8)	-15.0%
Industrial	0.0	0.0	0.0	0.0%
Public Authority	420.3	475.9	55.6	13.2%
Other	59.6	69.7	10.1	16.9%
Irrigation	0.0	0.0	0.0	0.0%
Recycled	0.0	0.0	0.0	0.0%
Total General Metered	21,690.4	22,879.4	1,189.0	5.5%
Non-WRAM Revenues				
Service Charges	3,850.2	3,855.9	5.7	0.1%
Residential Flat	0.0	0.0	0.0	0.0%
Private Fire Protection	118.2	118.2	0.0	0.0%
Public Fire Protection	6.7	6.7	0.0	0.0%
Other	39.6	39.6	0.0	0.0%
Total Flat Rate	4,014.7	4,020.5	5.8	0.1%
Deferred Revenues	0.0	0.0	0.0	0.0%
Total revenues	25,705.1	26,899.9	1,194.8	4.6%

TABLE 2-7

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

OPERATING REVENUES

TEST YEAR 2011

(AT CWS PROPOSED RATES)

Item	DRA	CWS	CWS exceeds DRA Amount	%
	(Thousands of $)			
WARM Revenues				
Residential	21,960.0	23,280.1	1,320.1	6.0%
Business	3,424.3	3,532.9	108.6	3.2%
Multiple Family	689.8	586.5	(103.3)	-15.0%
Industrial	0.0	0.0	0.0	0.0%
Public Authority	669.5	758.1	88.6	13.2%
Other	95.0	111.1	16.1	16.9%
Irrigation	0.0	0.0	0.0	0.0%
Recycled	0.0	0.0	0.0	0.0%
Total General Metered	26,838.6	28,268.7	1,430.1	5.3%
Non-WARM Revenues				
Service Charges	3,680.8	3,689.4	8.6	0.2%
Residential Flat	0.0	0.0	0.0	0.0%
Private Fire Protection	127.3	127.3	0.0	0.0%
Public Fire Protection	7.2	7.2	0.0	0.0%
Other	42.5	42.5	0.0	0.0%
Total Flat Rate	3857.8	3866.4	8.6	0.2%
Deferred Revenues	0.0	0.0	0.0	0.0%
Total revenues	30,696.4	32,135.1	1,438.7	4.7%

CHAPTER 3: OPERATIONS AND MAINTENANCE EXPENSES

A. INTRODUCTION

This Chapter presents DRA's analysis and recommendations on Operation and Maintenance ("O&M") expenses in the Bear Gulch District of the California Water Service Company ("CWS") for Test Year 2011. Table 3-A below shows the comparison of total O&M expense estimates at present rates for the Test Year.

Table 3-A. Comparison of Bear Gulch District's Total O&M Expense Estimates (including Payroll and Conservation).

Test Year 2011	DRA	CWS	CWS Exceeds DRA
Total O&M Expenses	$14,177,600	$15,834,700	$1,657,100 or 11.7%

B. SUMMARY OF RECOMMENDATIONS

DRA recommends that the Commission adopt its estimates for individual O&M expense accounts as discussed in the following sections. For the Bear Gulch District, DRA recommends adjustments to CWS' Test Year expense estimates for the following O&M expense accounts: (1) Purchased Water; (2) Purchased Power; (3) Postage; (4) Operations Transportation; (5) Maintenance Transportation; (6) Transmission and Distribution; (7) Contracted Maintenance; and (8) Uncollectibles.

C. DISCUSSION

DRA conducted an independent analysis of CWS testimonies, workpapers and methods of estimating the O&M expenses for the Bear Gulch District in this General Rate Case ("GRC").

Generally, CWS uses a five-year average of recorded expenses adjusted for inflation to estimate its O&M expenses. CWS deviates from the five-year average approach when it believes excluding a certain year's recorded expense from the

average would provide a more accurate estimate of the forecast years' expense levels.

DRA reviews the overall pattern of inflation-adjusted recorded expenses to assess the reasonableness of CWS' estimates and to propose alternative estimates, where applicable. DRA also examines the recorded data to determine the appropriateness of including in the forecast (averaging) calculation certain costs, such as one-time costs that are not expected to occur in the forecast period.

In calculating expenses that are a function of water production, sales and/or number of customers, DRA uses its estimates presented in Chapter 2 – Water Consumption and Operating Revenues of this Report. Both DRA and CWS apply DRA Energy Cost of Service Branch's escalation factors issued on May 31, 2009 to develop forecasted expenses.

Table 3-1 at the end of this Chapter summarizes the O&M expense estimates DRA recommends and compares them with CWS requests for Test Year 2011. Each O&M expense account listed in Table 3-1 is discussed below.

1) OPERATION EXPENSES

(a) PURCHASED WATER

Over 90% of the District's water production is purchased from the San Francisco Public Utilities Commission ("SFPUC"); the balance comes from its local surface water supply. Purchased Water expenses in the Bear Gulch District are comprised of fixed and variable charges from the SFPUC.

DRA agrees with CWS' method of estimating the District's Purchased Water costs and the use of currently effective SFPUC rates and charges. DRA's estimates however reflect the purchased water forecasts presented in Chapter 2 of this Report.

DRA recommends that the Commission adopt DRA's Test Year 2011 Purchased Water expense estimate shown below.

O&M Account	DRA	CWS	CWS Exceeds DRA
Purchased Water	$9,829,000	$10,398,200	$569,000 or 5.8%

(b) GROUNDWATER EXTRACTION CHARGES

CWS' Bear Gulch district does not incur any groundwater extraction charges.

(c) PURCHASED POWER

To estimate its purchased power expense, CWS first multiplies its estimated kilowatt-hours per hundred thousand cubic feet (KWh/ KCcf) of water produced by its estimated annual water production quantity (in KCcf).[11] The resulting energy requirement (in KWh) is then multiplied by the average cost per KWh purchased from PG&E.[12]

DRA agrees with CWS' method of estimating Purchased Power expense for this District. DRA's estimates however reflect its water production forecasts presented in Chapter 2 of this Report.

DRA recommends that the Commission adopt DRA's Test Year 2011 Purchased Power expense estimate shown below.

O&M Account	DRA	CWS	CWS Exceeds DRA
Purchased Power	$806,400	$850,300	$43,900 or 5.4%

[11] CWS uses KWh/KCcf and unit cost quantities from the district's last GRC. As stated in CWS' July 1, 2009 General Report, projected changes in the unit cost of purchased power are not included; this expense is offsettable by an advice letter filing.

[12] Ibid.

(d) PURCHASED CHEMICALS

Purchased Chemicals expense is a function of the cost of chemicals and the estimated water supply requirement. CWS develops its Test Year estimate by multiplying the inflation-adjusted, recorded purchased chemical cost per unit of production by the total annual water production forecast (from applicable sources). CWS' unit cost estimates for this District is based on an average of the most recent four-year period (2005-2008) and excludes the significantly lower expense total from 2004.

DRA agrees with CWS' estimating approach for this account and recommends no change to CWS' Test Year 2011 Purchased Chemicals expense estimate as shown below. DRA's estimates reflect the water production forecasts presented in Chapter 2 of this Report (same as CWS' water production estimates).

DRA recommends that the Commission adopt DRA's Test Year 2011 Purchased Chemicals expense estimate shown below.

O&M Account	DRA	CWS	CWS Exceeds DRA
Purchased Chemicals	$31,900	$31,900	$0 or 0%

(e) OPERATIONS PAYROLL

For discussion on Operations Payroll expenses, please refer to DRA's Payroll report. DRA's Operations Payroll expense estimate for Test Year 2011 is included in Table 3-1 at the end of this Chapter.

(f) POSTAGE

CWS' annual postage costs for the district are a function of: (1) postage rates; (2) the number of customers; and (3) the number of mailings to each customer per year. In this GRC, CWS assumes the number of mailings per customer remains constant over the forecast period. However, CWS applies a 4.8% increase in postage cost per customer in 2009 to account for a May 11, 2009

rate increase implemented by the United States Postal Service ("USPS"). For 2010-2012, CWS escalates the postage cost per customer by those years' composite escalation factors.

DRA notes that the 4.8% increase in postage rate is applicable to first-class mailings. Since CWS' customer mailings would qualify for USPS bulk mailing rates, applying the 4.8% in first-class rate increase to the forecast does not accurately reflect CWS' expected postage cost increase. DRA recommends using a lower 3.2% increase as an approximation of CWS' 2009 increase in postage cost per customer. The 3.2% increase is the average increase of USPS bulk mailing rates effective on May 11, 2009.

Additionally, DRA does not believe that escalation factors should be automatically applied to 2010-2012 postage expense forecasts. Annual rate increases are not at all certain. For example, according to the Associated Press on October 19, 2009, "Postmaster General John E. Potter announced in an internal postal memorandum that there will be no rise in prices next year [2010] for products in which the agency dominates the market, such as first-class mail." Bulk-rate mailings fall into this same USPS product category and, therefore, are not expected to have a rate increase in 2010. For that reason, DRA recommends that escalation factors *not* be applied to the District's postage expense estimates.

In addition to the above two adjustments to CWS' calculations, DRA also reflects its forecasted total number of customers in Chapter 2 of this Report. DRA recommends that the Commission adopt DRA's Test Year 2011 Postage expense estimate shown below.

O&M Account	DRA	CWS	CWS Exceeds DRA
Postage	$72,500	$78,200	$5,700 or 7.9%

(g) OPERATIONS TRANSPORTATION

CWS develops the District's total Transportation expense estimate in aggregate for (1) Operations, (2) Maintenance, and (3) Administration and General

(A&G). The total estimate is then allocated among these three areas by the average distribution over the last recorded period, which is 2008.

CWS develops its total transportation expense estimate based on recorded 2008 costs adjusted for inflation. Additionally, if the forecast period includes a request for additional vehicle(s), CWS increases the transportation expense estimate by the ratio of additional vehicle(s) to total number of existing vehicles. CWS' GRC filing includes the addition of *one* vehicle in 2009.

DRA's estimates are based on a five-year (2004-2008) average, instead of CWS' proposed 2008-only data. Additionally, DRA removes all expenses associated with the additional vehicle request. This adjustment is consistent with DRA's recommendation on the rate treatment of CWS' additional employee requests presented in DRA's Payroll Report.

DRA uses CWS' allocation methodology to determine Transportation expense estimates for Operations, Maintenance and A&G. DRA recommends that the Commission adopt DRA's Test Year 2011 Transportation expense estimates in Table 3-B below.

Table 3-B. Transportation Expense Estimates for Bear Gulch District.

Transportation Expenses:	DRA	CWS	CWS Exceeds DRA
Operations	$139,200	$164,400	$25,200 or 18.1%
Maintenance	$25,900	$30,600	$4,700 or 18.1%
A&G	$34,000	$40,100	$6,100 or 18.1%
Total:	$199,100	$235,100	$36,000 or 18.1%

(h) UNCOLLECTIBLES

CWS estimates its Uncollectibles expense for the Bear Gulch District by applying the average uncollectible rate from its most recent five-year period (2004-2008) to its revenue estimates. The uncollectible rate from each recorded year is calculated by dividing total recorded uncollectible expense by total recorded revenue. DRA reviewed the Bear Gulch District's recorded uncollectible rates from the most recent six years and finds the historical five-year average rate

to be a reasonable estimate for the forecast period. DRA's estimates for total Uncollectibles however reflect DRA's revenue projections presented in Chapter 2 of this Report.

DRA recommends that the Commission adopt an uncollectible rate of *0.09305%* for Test Year 2011 for the Bear Gulch District. DRA's recommended Uncollectibles expense total is shown in Table 3-1 at the end of this Chapter.

(i) SOURCE OF SUPPLY

CWS' Source of Supply expense estimates for the Bear Gulch District are based on average recorded annual expenses from the most recent five years (2004-2008). DRA agrees with CWS' estimating approach for this account and recommends no change to CWS' Test Year 2011 Source of Supply expense estimate as shown below.

O&M Account	DRA	CWS	CWS Exceeds DRA
Source of Supply	$12,100	$12,100	$0 or 0%

(j) PUMPING

Pumping expenses include labor, miscellaneous, and fuel expenses. CWS' Pumping expense estimates for the Bear Gulch District are based on average recorded annual expenses from the most recent five-year period (2004-2008). DRA agrees with CWS' estimating approach for this account and recommends no change to CWS' Test Year 2011 Pumping Expense estimate as shown below.

O&M Account	DRA	CWS	CWS Exceeds DRA
Pumping	$57,800	$57,800	$0 or 0%

(k) WATER TREATMENT

CWS' Water Treatment expense account includes well sampling, inorganic laboratory, bacterial laboratory, outside lab and miscellaneous expenses. CWS' Water Treatment expense estimates for the Bear Gulch District are based on average recorded expenses from the most recent five-year period (2004-2008).

DRA agrees with CWS' estimating approach for this account and recommends no change to CWS' Test Year 2011 Water Treatment expense estimate as shown below.

O&M Account	DRA	CWS	CWS Exceeds DRA
Water Treatment	$80,600	$80,600	$0 or 0%

(l) TRANSMISSION AND DISTRIBUTION

CWS' Transmission and Distribution ("T&D") expense account includes supervision and engineering, flushing, T&D lines, turn on's and turn off's, customer installation and miscellaneous expenses.

For the Bear Gulch District's T&D expense, CWS deviates from its general approach of using a five-year average of recorded expenses as a basis for projection. Instead, CWS develops its estimates based on a three-year average (2006-2008). CWS, in its Bear Gulch Result of Operations Report ("R.O. Report") dated July 1, 2009, explains that its "clean-up costs for main and leak repairs have increased substantially" and "a three year average is more representative of the current level of expenditures in this category."

In its response to DRA's data request PPM-006, CWS provides the following explanation to support the use of the three-year average:

> The Bear Gulch district serves affluent communities and the cities require that Cal Water facilities *blend* with the communities it serves. This means that the Bear Gulch district has to maintain its facilities like its neighbors in the communities it serves that result in increased landscaped and gardening costs.

CWS' explanation regarding the need to maintain its facilities like its neighbors in the communities it serves does not explain the higher costs in the last three years relative to 2004 and 2005 costs. Presumably, the need to "blend with the communities" has always existed in this District. CWS, in its response, also states that T&D expenses "are general in nature and occur without a predictable

pattern." DRA believes this statement by CWS actually supports the use of an average from a longer period, i.e., five-year instead of three-year.

Therefore, DRA uses a five-year average to estimate T&D expenses for this District. DRA recommends that the Commission adopt DRA's Test Year 2011 T&D Expense estimate shown below.

O&M Account	DRA	CWS	CWS Exceeds DRA
T&D	$392,900	$436,700	$43,800 or 11.1%

(m) CUSTOMER ACCOUNTING

CWS' Customer Accounting expense estimates for the Bear Gulch District are based on average recorded expenses from the most recent five-year period (2004-2008). DRA agrees with CWS' estimating approach for this account and recommends no change to CWS' Test Year 2011 Customer Accounting expense estimate shown below.

O&M Account	DRA	CWS	CWS Exceeds DRA
Customer Accounting	$103,600	$103,600	$0 or 0%

(n) CONSERVATION

For discussion on Conservation expenses, please refer to DRA's Conservation Report. DRA's Conservation expense estimate for Test Year 2011 is included in Table 3-1 at the end of this Chapter.

2) MAINTENANCE EXPENSES

(a) MAINTENANCE PAYROLL

For discussion on Maintenance Payroll expenses, please refer to DRA's Payroll Report. DRA's Maintenance Payroll expense estimate for Test Year 2011 is included in Table 3-1 at the end of this Chapter.

(b) MAINTENANCE TRANSPORTATION

Section C.1.g of this Chapter presents DRA's analysis and recommendations on transportation expenses for CWS' Bear Gulch District. DRA

recommends that the Commission adopt DRA's Test Year 2011 Maintenance Transportation expense estimate presented in Table 3-B (see Section C.1.g).

(c) STORES

CWS' Stores expense estimates for the Bear Gulch District are based on average recorded expenses from the most recent five-year period (2004-2008). DRA agrees with CWS' estimating approach for this account and recommends no change to CWS' estimated Test Year 2011 Stores expense estimate shown below.

O&M Account	DRA	CWS	CWS Exceeds DRA
Stores	$34,600	$34,600	$0 or 0%

(d) CONTRACTED MAINTENANCE

Contracted Maintenance expenses include: inspecting, testing and reporting on the condition of the utility plant; inspecting and testing for adequacy of repairs that had been made; work performed for the purpose of preventing failure; testing to locate trouble and making necessary repairs.[13]

CWS' Contracted Maintenance estimates are based on the average from the most recent three years (2006-2008). CWS, in its R.O. Report justifies the use of the three-year period by stating simply that "[t]he prior years have a different magnitude of expense and are not reflective of current level of expense."

DRA notes that recorded costs from 2004 and 2005 are substantially lower than those from the three-year average used in the estimates and there is a spike in costs in 2006. In its response to DRA's request, CWS was not able to describe any special circumstance that caused the spike in 2006 costs and can only add that "[t]hese expenses are general in nature and occur without a predictable pattern." If this is true, DRA believes basing the estimates on a longer period, such as five

[13] CWS' response to DRA's data request PPM-006.

years instead of three years, would better capture the cost variations in recent years.

DRA therefore bases its estimates on a five-year average of T&D recorded costs. DRA recommends that the Commission adopt DRA's Test Year 2011 Contracted Maintenance Expense estimate shown below.

O&M Account	DRA	CWS	CWS Exceeds DRA
Contracted Maintenance	$859,300	$912,600	$53,300 or 6.2%

D. CONCLUSION

DRA recommends that the Commission adopt its O&M expense estimates for the Bear Gulch District as presented herein.

TABLE 3-1

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

OPERATION & MAINTENANCE EXPENSES

TEST YEAR 2011

Item	DRA	CWS	CWS exceeds DRA Amount	%
	(Thousands of $)			
At present rates				
Operating Revenues	25,705.1	26,899.9		
Uncollectible rate	0.09305%	0.09305%		
Uncollectibles	23.9	25.0	1.1	4.6%
Operation Expenses				
Purchased Water	9,829.2	10,398.2	569.0	5.8%
Replenishment Assessment	0.0	0.0	0.0	0.0%
Groundwater Extraction Charges	0.0	0.0	0.0	0.0%
Purchased Power	806.4	850.3	43.9	5.4%
Purchased Chemicals	31.9	31.9	0.0	0.0%
Payroll	1,284.2	1,570.6	286.4	22.3%
Postage	72.5	78.2	5.7	7.9%
Transportation	139.2	164.4	25.2	18.1%
Uncollectibles	23.9	25.0	1.1	4.6%
Source of Supply	12.1	12.1	0.0	0.0%
Pumping	57.8	57.8	0.0	0.0%
Water Treatment	80.6	80.6	0.0	0.0%
Transmission & Distribution	392.9	436.7	43.8	11.1%
Customer Accounting	103.6	103.6	0.0	0.0%
Conservation	138.1	698.5	560.4	405.8%
Total Operation Expenses	12,972.4	14,507.9	1535.5	11.8%
Maintenance Expenses				
Payroll	285.4	349.0	63.6	22.3%
Transportation	25.9	30.6	4.7	18.1%
Stores	34.6	34.6	0.0	0.0%
Contracted Maintenance	859.3	912.6	53.3	6.2%
Total Maintenance Expense	1,205.2	1,326.8	121.6	10.1%
Total O & M Expenses (incl uncoll)	14,177.6	15,834.7	1657.1	11.7%
At proposed rates				
Operating Revenues	30,696.4	32,135.1		
Uncollectible rate	0.09305%	0.09305%		
Uncollectibles	28.6	29.9		
Total O & M Expenses (incl uncoll)	14,182.3	15,839.6	1657.3	11.7%

CHAPTER 4: ADMINISTRATIVE & GENERAL EXPENSES

A. INTRODUCTION

This Chapter presents DRA's recommended expense levels for California Water Service Company's ("CWS") 2011 Test Year Administrative and General ("A&G") expenses for the Bear Gulch District.

The categories of A&G expenses cover general expenses including Payroll, Transportation Expenses, Rent, Administration Charges Transfer, Workers' Compensation, Nonspecific Expenses, Amortization of Limited Term Investments and Dues and Donations Adjustment. Table 4-1 presents a comparison of total expense estimates for Test Year 2011.

DRA analyzed CWS' exhibits, supporting workpapers, CWS' responses to DRA's data requests, information provided in meetings, phone conversations, e-mails, and CWS' methods of estimating A&G expenses.

B. SUMMARY OF RECOMMENDATIONS

DRA's estimated total for A&G expenses is $1,849,900 for Test Year 2011. CWS' estimate for the same time period is $2,024,100. CWS' estimate exceeds DRA's estimate by $174,200, or 9.4%. DRA's estimated total for A&G expenses is $1,866,700 for Test Year 2012. CWS' estimate exceeds DRA's estimate by $206,100, or 11%. The difference between the forecasted expense levels of DRA and CWS is the result of : 1) DRA's 2011 Test Year estimates of the various A&G activity expenses; 2) account by account adjustments; 3) different methodologies; and 4) the use of the May 2009 Energy Cost of Service Branch escalation factors memo to derive the estimates as discussed below.

C. DISCUSSION

1) Forecasting Methodology

DRA conducted an independent analysis of CWS' workpapers and methods of estimating the A&G expenses. DRA analyzed CWS' application and exhibits, supporting workpapers, CWS' data request responses, information provided in meetings, field trips to CWS site locations, telephone conversations and e-mails. In general, DRA uses a five-year (2004-2008) average to derive it's A&G expense estimates where it had differences with CWS. DRA also removes unusual expenses recorded in certain years to arrive at a different total than CWS, in particular for Nonspecific Expenses. DRA applies its escalation factors to all A&G accounts.

2) Payroll

For A&G payroll expense, please refer to DRA's Payroll Report.

3) Employee Benefits

There were no methodical differences between DRA and CWS in calculating employee benefits. DRA's estimates for the accounts below are based on (1) total payroll dollars, and (2) total number of employees. CWS' estimates are also a function of these two factors. Per employee unit benefit costs were developed by Milliman[14] and are based on a variety of actuarial assumptions. The underlying assumptions, except for the escalation factors, were accepted by DRA. Any differences are, therefore, attributable to different escalation factors and differing estimates for total company payroll and total General Office and district employees for 2011 and 2012.

[14] Milliman is CWS' Pensions and Benefits actuarial consultants.

DRA recommends the following amounts (thousands of dollars) for Account 795, Pensions and Benefits:

	DRA		CWS	
	2011	**2012**	**2011**	**2012**
Total Account 795	$1,075.5	$1,082.1	$1,182.3	$1,201.4

All company benefits are accounted for in general operations and allocated to each of the districts using the four-factor method of allocation. In general benefit costs are a function of employee payroll dollars, and/or the number of employees. The following is a breakdown of the sub-accounts included in the total Account 795 Pensions and Benefits:

(a) **Account 7951-1 Retirement Savings Plan.**

CWS provides employees with a 401(k) program and matches 50% of employee contributions up to 8% of payroll or the statutory contribution limit, whichever is less. Therefore, CWS' maximum contribution is 4% of company payroll. However, not all employees participate in the program. Based on actual participation levels, CWS' matching contribution during the last five years, was approximately 3%. This rate was used by CWS to forecast the test year amount, and is in line (or comparable) to those offered by other California utilities.[15]

DRA estimated the test year contribution based on the five-year average contribution percentage of 3%, which was multiplied by DRA's estimate of total company payroll (in 2011 and 2012).

[15] The 3% rate is in line with the 401(k) plans offered by San Jose Water, PG&E, Southern California Edison, and Sempra Energy. See the Milliman analysis, CWS General Report, Tab 12.

(b) **Account 7951-2 Retirement Fund.**

CWS' pension funding estimate is based on an actuarial forecast from Milliman. The Milliman analysis also reflects a unit cost per employee which DRA and CWS applied to the estimated number of employees to arrive at the test year's estimate. DRA and CWS' estimates differ because of different escalation factors and different estimates for total employees in the General Office and all districts.

The Milliman forecast is based on certain assumptions such as population growth, payroll changes, and salary adjustments. The Milliman forecast also assumes a long term rate on plan assets of 6.75%, and a discount rate of 5.75% for the years 2011 through 2013. CWS follows FASB[16] Statement of Financial Accounting Standards (SFAS) No. 87, as modified by SFAS 132 and SFAS 158.[17] CWS has followed SFAS 87 since it became effective in 1987. Prior to 1987, CWS pension costs equaled the cash contributions to the pension plan determined in accordance with ERISA.[18] The test year projections are based on Milliman's actuarial valuation as of January 1, 2009 for determining the Net Periodic Benefit Cost under SFAS 87. The underlying pension costs assumptions were accepted by DRA.

DRA was persuaded that CWS had taken appropriate steps to mitigate the ratepayer impact of Plan costs. Further, CWS undertook the following measures to avail itself of the benefits provided under (a) The Pension Protection Act of

[16] Financial Accounting Standards Board.
[17] CWS' response to DRA Data Request JRC-2, Q.7.
[18] Employment Retirement Income Security Act, or Federal law.

2006, (PPA) and (b) The Worker, Retiree and Employer Recovery Act (WRERA) of 2008:[19]

(i) CWS fully complied with PPA and WRERA. CWS modified the actuarial cost method for purposes of determining the minimum funding requirement to the Unit Credit method. CWS also adopted the use of the "3-segment" interest rates (for the 2008 minimum funding requirement) and the "full yield curve" (for the 2009 minimum funding requirement). The actuarial valuations for 2008 and 2009 have shown that the contributions by CWS will satisfy the minimum funding requirements as modified by PPA and WRERA.

(ii) In December 2008, CWS made an election to voluntarily reduce its carryover balance (i.e., pre-PPA credit balance) of $1,537,616 as of January 1, 2008 to $0, so that such amount could be included in its plan assets. This was done in order to improve the plan's funded percentages under PPA. In 2009, CWS elected to use the "full yield curve" to determine the funding target under PPA. This increased the plan's funded percentage for 2009.

(c) **Account 7952- Group Health Insurance.**

CWS administers its own (self-insured) employee health care plan. The cost of health insurance is based on actual claims experience and not outside premium payments. The plans include Medical, Dental and Vision care. Further, the plans are on the PPO model where employees are encouraged to use network health care providers in order to minimize costs. CWS' estimate is based on an actuarial forecast from Milliman and includes employee contributions of $125 per month. The Milliman forecast assumes that overall medical cost inflation will

[19] CWS' response to DRA Data Request JRC-2, Q.1.

continue to be 10% annually for the forecast period.[20] The Milliman analysis also reflects a unit cost per employee which DRA and CWS applied to the estimated number of employees. DRA and CWS' estimate differs because of different escalation factors and different estimates for total employees in the General Office and all districts. The underlying forecast assumptions were accepted by DRA.

(d) **Account 7952-1 Retiree Group Health Insurance.**

CWS administers its own (self-insured) retiree health care plan. Therefore, costs for these plans are based on claims experience, not outside premium payments. The plans are on the PPO model, where employees are encouraged to use network providers in order to minimize costs. Further, retirees pay a monthly premium of $300 per person (a retiree and spouse pay $600 per month). This rate decreases to $144 per person when there is other coverage such as Medicare.

The retiree plan is funded in advance in accordance with SFAS 106, which requires that annual funding of the plan be based on an actuarial analysis of the expected future expense arising during the employee service time. CWS' estimate is based on an actuarial forecast from Milliman. The Milliman forecast assumes that overall medical cost inflation will continue to be 10% annually for the forecast period. The Milliman analysis also reflects a unit cost per employee which DRA and CWS applied to the estimated number of employees. DRA and CWS' estimate differs because of different escalation factors and estimates for total employees in the General Office and all districts. The underlying forecast assumptions, except for the escalation factors, were accepted by DRA.

[20] Dental and Vision care inflation is forecasted at 5% each for 2011 through 2013.

4) Transportation Expense

DRA addresses Transportation Expense in Chapter 3 Operations and Maintenance Expenses of this Report. DRA's estimate for transportation expenses is $34,000 for Test Year 2011; CWS' estimate for the same time period is $40,100 or 6.1% greater than DRA's. DRA's estimate for Test Year 2012 is $34,800; CWS estimate for the same period is $41,100, or 18.1% higher than DRA's.

5) Rent

CWS' has estimated rental expense of $98,800 for Test Year 2011, and $101,000 for Test Year 2012.[21] DRA has verified the information regarding the company's rental expense, and recommends adoption of this estimate for CWS' Rent expense.

6) Administration Charges Transfer

Administration Charges Transfer represents credits for unregulated activity. CWS' estimate of $(3,500) for Test Year 2011, and $(3,500) for Test Year 2012, for Administration Charges Transferred based upon the last recorded year.[22] DRA reviewed CWS' workpapers and recommends adoption of these estimates for Administration Charges Transferred.

7) Workers Compensation

CWS' estimates of $82,700 in Test Year 2011, and $91,100 in Test Year 2012 for Workers Compensation is based on actuarial expectations conducted by actuaries at Milliman USA ("Milliman"). An assumption embedded in the estimate is a provision to account for Workers' Compensation to include expedted

[21] Refer to Report on the Results of Operation and Prepared Testimony for the Bear Gulch District, Chapter 6.

[22] Refer to CWS' Formal Application Workpapers for the Bear Gulch District, Table 6-B.

future payments from current employment.[23] In other words, instead of basing the costs on the well-established "pay-as-you-go methodology" that the Commission has consistently utilized, CWS proposes changing to an accrual basis and including the amortization of past liabilities for which payments have not yet been made.

In the prior rate case, CWS requested the same methodology change. DRA disagreed and calculated a percentage reduction at the General Office level based on the 2002-2006 average for the prior Test Year 2008-2009. The Commission similarly applied DRA's recommended reduction to all the districts in that case. In D. 08-07-008 (pages 25-26, Section 4.7 on Workers' Compensation), the Commission upheld the use of the "pay-as-you-go methodology" for accounting for Workers' Compensation insurance costs.

For the current rate case, DRA continues to disagree with CWS' proposed change in recovery methodology and recommends continuing the "pay-as-you-go methodology" for recovering this cost. To put in perspective CWS' current proposal for Test Year 2011, on a company-wide basis, i.e., 24 districts plus General Office, CWS' total proposed Workers' Compensation is $2,747,250. This amount is almost triple the total 2008 recorded amount of $992,800 and about 70% higher than the 2004-2008 five-year average (in 2009 dollars) of $1,643,900.

DRA reviewed the recorded amounts for Workers' Compensation for this district. DRA believed the recorded amounts for 2004 to 2008 are more reflective of the "pay-as-you-go methodology" for accounting for Workers Compensation that the Commission approved in D. 08-07-008. DRA then took a five-year average of these recorded amounts, escalated the five-year average using DRA's

[23] Refer to General Report on the Results of Operations and Prepared Testimony, pg. 62.

labor escalation factors to derive its Test Year 2011, and 2012 forecast of $82,300, for both years respectively for the Bear Gulch District.

DRA recommends adapting its estimate of $82,300 for Workers Compensation for the Test Year's for this district.

8) Nonspecific Expenses

Nonspecific Expenses generally represent miscellaneous administrative and general expenditures. The Nonspecific Expenses account contains various sub-accounts. However, CWS does not provide estimated amounts for each sub-account for future years. Instead, it provides a compound figure for Nonspecific Expenses that are based on historical spending levels in all sub-accounts. CWS' Nonspecific Expenses estimate for the 2011 Test Year of $48,200; is based on a 5-year average. DRA reviewed all sub accounts within Nonspecific expenses and adjusted some amounts for the years 2004 through 2008 under the following subaccounts: Account 799500 – Miscellaneous and General Expense by $6,052, and Account 799503 – Charitable Contributions by $1,000. DRA then escalated its five-year average using DRA's composite escalation factors to derive its 2011 forecast. DRA recommends adoption of its estimate of $46,700, and $47,900 for Nonspecific Expenses for 2011, and 2012 forecasts respectively. DRA's reasons for these adjustments are described below:

(a) Account 799500 - Miscellaneous and General Expense

DRA identified expenditures in 2004, 2005, and 2006 for Cal Waters employee celeb day, as well as food and flowers for a funeral, Ronald McDonald fishing day, and a 35 year gift for a company employee. DRA is of the opinion that these expenditures are of no benefit to ratepayers, and were removed from DRA's estimate. DRA used a five-year average of recorded years 2004 to 2008 with the cost of the previously mentioned items removed.

(b) Account 799503 – Charitable Contributions

DRA notice a one time expenditure in 2006 for a donation to a "Canine Program". DRA is of the opinion that this expenditure is of no benefit to ratepayers, and removed it from DRA's estimate. DRA used a five–year average of recorded years 2004 to 2008 with the cost of the previously mentioned item removed.

9) Amortization of Limited Term Investment

This expense pertains to the amortization of any intangible assets, such as capital planning studies. CWS' estimates $97,600 for Amortization of Limited Term Investment. CWS bases its estimate from the general method for this expense shown on CWS' amortization schedule. DRA reviewed this account and recommends adoption of CWS' Amortization of Limited Term Investment estimate.

10) Dues and Donations Adjustment

The dues and donations adjustment represents CWS' adjustment of non-professional dues paid historically. CWS' estimate for Dues and Donations Adjustment is ($2,100). DRA reviewed CWS' workpapers and recommends adoption of CWS' Dues and Donations Adjustment.

D. CONCLUSION

DRA recommends that the Commission adopt DRA's A&G Expenses for the Bear Gulch District.

TABLE 4-1

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

ADMINISTRATIVE & GENERAL EXPENSES

TEST YEAR 2011

Item	DRA	CWS	CWS exceeds DRA Amount	%
	(Thousands of $)			
At present rates				
Oper. Rev. less uncoll.	25,681.2	26,899.9		
Local Franchise Rate	0.7649%	0.7649%		
Franchise tax	196.4	205.7	9.3	4.7%
Payroll	224.2	274.3	50.1	22.3%
Benefits	1,075.5	1,182.3	106.8	9.9%
Transportation Expenses	34.0	40.1	6.1	17.9%
Rent	98.8	98.8	0.0	0.0%
Admin Charges Trsf	(3.5)	(3.5)	0.0	0.0%
Worker's Compensation	82.3	82.7	0.4	0.5%
Nonspecifics	46.7	48.2	1.5	3.2%
Amort of Limited Term Inv.	97.6	97.6	0.0	0.0%
Dues & Donations Adjustment	(2.1)	(2.1)	0.0	0.0%
Total A & G Expenses	1,653.5	1,818.4	164.9	10.0%
(incl. local Fran.)	1,849.9	2,024.1	174.2	9.4%
At proposed rates				
Oper. Rev. less uncoll.	30,667.8	31,580.8		
Local Franchise Rate	0.7649%	0.7649%		
Fran. tax	234.6	241.5	7.0	3.0%
Total A & G Expenses	1,653.5	1,818.4	164.9	10.0%
(incl. local Fran.)	1,888.1	2,059.9	171.9	9.1%

CHAPTER 5: TAXES OTHER THAN INCOME

A. INTRODUCTION

This chapter presents DRA's analysis and recommendations on Taxes Other Than Income for the Bear Gulch District of California Water Service's (CWS) Test Year 2011 General Rate Case. The category of Taxes Other Than Income is comprised of ad valorem (property taxes), business license fees, local franchise fees, and payroll taxes.

B. SUMMARY OF RECOMMENDATIONS

Differences between CWS' and DRA's estimates for Taxes Other Than Income are primarily due to differences in revenue, plant and payroll estimates. The methodologies used by CWS in estimating future taxes and fees are detailed below. Anywhere DRA has made adjustments to improve the consistency or accuracy of estimates has also been noted below.

C. DISCUSSION

1) AD VALOREM TAXES

CWS estimates future ad valorem taxes using the actual ad valorem tax percentage from the last recorded year. This percentage is applied to the following year's estimated net total of utility property accounts.[24] The pro-forma ad valorem estimate is the arithmetic average of the two years. DRA accepts this methodology and notes that differences between CWS and DRA estimates are due to differences in estimations of future plant.

[24] Net Total of Property = plant + materials & supplies + construction work in progress + present value of advances – advances & contributions – deferred income tax

2) BUSINESS LICENSE and LOCAL FRANCHISE FEES

The Bear Gulch District pays a business license fee in Portola Valley and a Franchise Fee in Menlo Park, Atherton, and Woodside. Based upon 2008 recorded taxes, the Franchise Fee for the district is 0.76% of district revenue. CWS applies this effective percentage to estimated future revenues. DRA accepts the CWS' estimates for Business License Fee and Franchise Fees and notes that any differences are the result of different estimates of future revenue.

3) PAYROLL TAXES

CWS estimates future payroll taxes using projected payroll amounts and the effective tax rates from the last recorded year. The three components of payroll taxes are Federal Insurance Contributions (FICA), Federal Unemployment Insurance (FUI) and State Unemployment Insurance (SUI). All three components have statutory limits governing the maximum percentage that can be collected from employers (*see table, below*).

PAYROLL TAXES		2009 MAXIMUM	EXPLANATORY NOTES
FICA	Social Security Tax	6.2%	Social Security Tax is 6.2% applied to only the first $106,800 of an employee's salary.
	Medicare Tax	1.45%	
FUI Tax		0.8%	Federal Unemployment Tax is 6.2% reduced by an offset credit of up to 5.4% for a total of 0.8% on the first $7,000 of employee wages ($56 per employee).
SUI Tax (CA)		6.3%	State Unemployment Taxes vary by company from 1.5% to 6.2% plus an Employment Training Tax Rate of 0.1% for a maximum tax percentage of 6.3%.

DRA accepts the methodology utilized by CWS to estimate future payroll taxes for Bear Gulch and notes that any differences are the result of differences in the estimates of future payroll.

D. CONCLUSION

DRA recommends Commission adoption of DRA's estimates of Taxes Other Than Income that are presented in Tables 5-1.

TABLE 5-1

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

TAX DEDUCTIONS AND CREDITS

TEST YEAR 2011

Item	DRA	CWS	CWS exceeds DRA Amount	%
	(Thousands of $)			
Ad Valorem taxes	507.3	624.7	117.4	23.1%
Local Franchise (pres rates)	196.4	205.7	9.3	4.7%
Local Franchise (CWS prop rates)	234.6	241.5	7.0	3.0%
Social Security Taxes	120.2	147.0	26.8	22.3%
Business License (pres rates)	24.3	25.4	1.1	4.5%
Business License (CWS prop rates)	28.7	29.5	0.8	2.8%
Taxes other than income (present rates)	848.2	1,002.9	154.7	18.2%
Taxes other than income (CWS proposed rates)	890.8	1,042.8	152.1	17.1%
State Tax Depreciation	3,261.6	3,754.7	493.1	15.1%
Transp. Dep. Adj.	(63.4)	(77.3)	(13.9)	21.9%
State Tax Deduct(pres rates)	3,198.2	3,677.4	479.2	15.0%
State Tax Deduct (CWS prop rates)	3,198.2	3,677.4	479.2	15.0%
Fed. Tax Depreciation (pres/prop rates)	2,307.2	2,656.1	348.9	15.1%
State Income Tax (pres. rates)	185.3	(37.0)	(222.3)	-120.0%
State Income Tax (CWS prop rates)	622.4	373.1	(249.3)	-40.1%
Pre. Stock Div. Credit	0.0	0.0	0.0	0.0%
DPAD (pres. Rates)	(20.1)	(64.7)	(44.6)	221.3%
DPAD (CWS prop. Rates)	(51.8)	(444.9)	(393.1)	758.8%
Fed. Tax Deduct.(pres rates)	2,472.5	2,554.4	81.9	3.3%
Fed. Tax Deduct (CWS prop rates)	2,877.8	2,584.3	(293.6)	-10.2%

CHAPTER 6: INCOME TAXES

A. INTRODUCTION

This chapter presents DRA's analysis and recommendations on Income Taxes for the Bear Gulch District of California Water Service (CWS) Test Year 2011 General Rate Case. In developing its recommendations, DRA reviewed the reports, workpapers, and data responses of CWS in conjunction with information obtained from the California Franchise Tax Board and the Internal Revenue Service.

B. SUMMARY OF RECOMMENDATIONS

The majority of the differences between CWS and DRA estimates of Income Taxes are attributable to differences in estimated revenue, expenses, and rate base. Anywhere DRA has made adjustments to the estimating methodology used by CWS is detailed below. The four areas in which DRA made adjustments to CWS calculations for Bear Gulch pertain to the: (1) federal deduction of the California Corporate Franchise Tax, (2) California Corporate Franchise Tax total percentage, (3) calculation of the interest expense deduction, and (4) domestic production activities deduction.

C. DISCUSSION

1) DRA ADJUSTMENTS

(a) Federal Deduction of California Corporate Franchise Tax (CCFT)

D.89-11-058, issued in November of 1989, required that the prior year's CCFT be used as the deduction for calculation of test year federal income taxes. As discussed throughout the decision, companies at that time were required to pay estimated California taxes one year in advance.[25] D.89-11-058 corrected the

[25] California Revenue and Taxation Code, Part 11, Chapter 2, Article 2, Section 23151(f)(2)

timing difference between when companies had previously paid California taxes and when they had realized such payment as a deduction for federal income taxes.

Since 1989, the California Tax Code has changed so that corporations are no longer required to make estimated CCFT payments to the state one year in advance. In fact, California tax law now requires corporations to compute an estimated tax "upon the basis of the net income for that taxable year."[26] As such, DRA recommends using the current year's CCFT as a deduction in the current year's calculation of federal income taxes. Differing from D.89-11-058 yet more representative of current California tax practice, DRA's methodology provides a more accurate estimate of a utility's assumed tax consequences and revenue requirements. More importantly, consistent with long-standing regulatory tradition and Generally Accepted Accounting Procedures (GAAP), the DRA methodology more closely adheres to the fundamental "matching principle," where costs incurred in a given period should be matched against the revenue or benefits received in the same period.

(b) California Corporate Franchise Tax Total Percentage

Referencing D.84-05-036 yet failing to cite the specific ordering paragraph, section, or discussion, CWS added six-basis points to the CCFT percentage used to estimate state taxes for test year and escalation years. Through data requests, review of Commission decisions, and personal interviews, DRA attempted to find some justification for CWS' inclusion of an additional 0.06% in state tax estimates. Unable to substantiate the validity of this addition, DRA removed the percentage, which reduced CCFT estimates by 0.06%.

[26] Ibid

(c) Calculation of the Interest Expense Deduction

A formula error in CWS' workpapers for calculating the Interest Expense Deduction resulted in Working Cash being subtracted from Rate Base. DRA has corrected this error in the calculation of the deduction for Bear Gulch. The recommended Interest Expense Deduction now equals Rate Base (including working cash) multiplied by the current CWS weighted-average-cost-of-debt (3.16%).[27]

(d) Domestic Production Activities Deduction (DPAD)

Beginning in taxable year 2010, Section 199 of the IRS Code allows a deduction equal to 9% of a taxpayer's qualified production activities income (QPAI). The calculation of this deduction by CWS for Bear Gulch assumes that all income is from qualified production activities. This assumption results in an overestimation of the allowable deduction and an underestimation of the district's assumed taxes. DRA has corrected the DPAD calculation for Bear Gulch to incorporate only those qualifying activities into the deduction. DRA multiplies the deduction calculated by CWS by the percentage of water produced[28] in the district (a qualifying activity).

2) GENERAL INCOME TAX CALCULATIONS

In calculating income taxes, both DRA and CWS subtract common expenses from estimated revenue. For the calculation of state taxes, CWS has calculated tax depreciation amounts to reflect the required flow-through of deferred tax benefits, while federal tax depreciation amounts reflect the requirements of normalization.

[27] D.09-05-019: Base Year 2009 Cost of Capital for the three large multi-district Class A Water Utilities

[28] "produced water" and "purchased water" are the two categories of "total water" used to calculated DPAD

This methodology is consistent with the requirements of the Economic Recovery Act of 1981, the Tax Equity and Fiscal Responsibility Act of 1982, and the Tax Reform Act of 1986.

D. CONCLUSION

DRA recommends Commission adoption of DRA's estimates of Income Taxes that have been calculated and presented in Tables 6-1 and 6-2.

TABLE 6-1

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

TAXES BASED ON INCOME

TEST YEAR 2011

(PRESENT RATES)

Item	DRA	CWS	CWS exceeds DRA Amount	%
	(Thousands of $)			
Operating revenues	25,705.1	26,899.9	1,194.8	4.6%
Deductions:				
O & M expenses	14,177.6	15,834.7	1,657.1	11.7%
A & G expenses	1,653.5	1,818.4	164.9	10.0%
G. O. Prorated expenses	2,668.3	3,596.1	927.8	34.8%
Exclude GO Book Depreciation	(355.8)	(413.5)	(57.7)	16.2%
Taxes not on Income	848.2	1,002.9	154.7	18.2%
Transportation Deprec Adj	(63.4)	(77.3)	(13.9)	21.9%
Interest	1,418.5	1,800.1	381.6	26.9%
Income before taxes	5,358.2	3,338.4	(2,019.8)	-37.7%
Calif. Corp. Franchise Tax				
State Tax Deductions	(3,261.6)	(3,754.7)	-493.1	15.1%
Taxable income for CCFT	2,096.6	(416.3)	(2,512.9)	-119.9%
CCFT Rate	8.84%	8.84%		
Additional Tax per D.84-05-036	0.0	(0.2)	(0.2)	0.0%
CCFT	185.3	(37.0)	(222.3)	-120.0%
Federal Income Tax				
Tax Depreciation	2,307.2	2,656.1	348.9	15.1%
State Corp Franch Tax	185.3	(37.0)	(222.3)	-120.0%
Pref Stock Dividend Credit	0.0	0.0	0.0	0.0%
Taxable income for FIT	2,865.6	719.3	(2,146.3)	-74.9%
Domestic Prod. Activities Ded.	(20.1)	(64.7)	(44.6)	221.3%
Adjusted Taxable Income	2,845.5	654.6	(2,190.8)	-77.0%
FIT Rate	35.00%	35.00%		
FIT	995.9	229.1	(766.8)	-77.0%
Investment Tax Credit	6.8	6.8	0.0	0.0%
Total FIT	989.1	222.3	(766.8)	-77.5%
Total FIT & CCFT	1,174.4	185.5	(988.9)	-84.2%

TABLE 6-2

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

TAXES BASED ON INCOME

TEST YEAR 2011

(AT CWS PROPOSED RATES)

Item	DRA	CWS	CWS exceeds DRA Amount	%
	(Thousands of $)			
Operating revenues	30,696.4	31,580.8	884.4	2.9%
Deductions:				
O & M expenses	14,182.3	15,839.6	1,657.3	11.7%
A & G expenses	1,653.5	1,818.4	164.9	10.0%
G. O. Prorated expenses	2,668.3	3,596.1	927.8	34.8%
Exclude GO Book Depreciation	(355.8)	(413.5)	(57.7)	16.2%
Taxes not on Income	890.8	1,042.8	152.1	17.1%
Transportation Deprec Adj	(63.4)	(77.3)	(13.9)	21.9%
Interest	1,418.5	1,800.1	381.6	26.9%
Income before taxes	10,302.3	7,974.5	(2,327.8)	-22.6%
Calif. Corp. Franchise Tax				
State Tax Deductions	(3,261.6)	(3,754.7)	-493.1	15.1%
Taxable income for CCFT	7,040.7	4,220.3	(2,820.4)	-40.1%
CCFT Rate	8.84%	8.84%		
Additonal Tax per D.84-05-036	0.0	2.5	2.5	0.0%
CCFT	622.4	373.1	(249.3)	-40.1%
Federal Income Tax				
Tax Depreciation	2,307.2	2,656.1	348.9	15.1%
State Corp Franch Tax	622.4	375.6	-246.8	-39.7%
Pref Stock Dividend Credit	0.0	0.0	0.0	0.0%
Taxable income for FIT	7,372.6	4,942.9	(2,429.8)	-33.0%
Domestic Prod. Activities Ded.	(51.8)	(444.9)	-393.1	758.8%
Adjusted Taxable Income	7,320.8	4,498.4	-2822.5	-38.6%
FIT Rate	35.00%	35.00%		
FIT	2,562.3	1,574.4	(987.9)	-38.6%
Investment Tax Credit	6.8	6.8	0.0	0.0%
Total FIT	2,555.5	1,567.6	(987.9)	-38.7%
Total FIT & CCFT	3177.9	1940.7	(1,237.2)	-38.9%

CHAPTER 7: UTILITY PLANT IN SERVICE

A. INTRODUCTION

DRA's and CWS' estimates for the Bear Gulch District Plant in Service for the Test Year 2011 and Escalation Year 2012 are shown in Tables 7-1 and 7-2 at the end of this chapter.

DRA reviewed and analyzed CWS' testimony, application, Minimum Data Requirements, workpapers, capital project details, estimating methods, and responses to various DRA data requests. DRA also conducted a field investigation of most of the proposed specific plant additions before making its own independent estimates including adjustments where appropriate. Important and significant differences between DRA's and CWS' estimates of specific plant additions are attributed to the items listed in Table 7-B.

B. SUMMARY OF RECOMMENDATIONS

DRA recommends that 1) plant additions for 12 specific projects in 2009 be disallowed, adjusted, deferred, or approved for Advice Letter treatment; 2) plant additions for 20 specific projects in 2010 be disallowed, adjusted, or approved for Advice Letter treatment; 3) plant additions for 11 specific projects in 2011 be disallowed, adjusted, or deferred; 4) plant additions for 9 specific projects in 2012 be disallowed, adjusted, or deferred to the next GRC; 5) plant additions for carryover projects be adjusted to reflect DRA's estimates; and 6) plant additions for non-specifics in 2009 through 2012 be adjusted to reflect DRA's escalation factors. Based on these recommendations, DRA's estimates for the 2009, 2010, 2011 and 2012 plant additions are $4,721,700, $4,193,000, $3,408,000, and $2,732,400 respectively versus CWS' proposed amounts of $9,311,900, $7,232,300, $7,837,200, and $9,028,800, respectively for the same years as shown in Table 7-A below.

Table 7-A. Bear Gulch District

Company funded Plant Additions, Including Carryovers & Non-Specifics (Thousands of Dollars)

	2009	2010	2011	2012	AVG
DRA	$4,721.7	$4,193.0	$3,408.0	$2,732.4	$3,763.6
CWS	$9,311.9	$7,232.3	$7,837.2	$9,028.8	$8,352.6

Table 7-B. Specific Projects Differences Comparison

Budget Year	Project ID Number	Category	Project Description	CWS Proposed Budget	DRA Proposed Budget
2009	17714	Vehicles	Sedan – Supervisor	$28,500	Defer to 2011
2009	17797	Pumps	Emergency Generator – Sta. 2	$284,200	$270,000
2009	17834	Pumps	RTU Replacement	$64,800	$20,965
2009	19998	Hydrants	Hydrants – Menlo Park Fire Protection District Service Area	$195,000	$108,000
2009	20144	Equipment	Rapid Response Emergency Command Center	$108,000	$0
2009	20435	Vehicles	Sedan – Customer Service Manager	$28,500	$0
2009	20744	Storage	Replace Tank Berms – Sta. 30 Tank 1 – Portola	$49,000	$13,624
2009	20753	Vehicles	2.5 Ton F-650 C&C Flatbed	$98,000	Defer to next GRC
2009	21065	Field	Mobile Radio	$2,200	Defer to 2010
2009	21065	Field	Truck Upfitting – 0.5 Ton Pickup	$7,200	Defer to 2010
2009	21065	Vehicles	0.5 Ton Pickup w/ Accessories	$31,100	defer to 2010
2009		Meters	Small Meter Replacement	$189,500	$125,913
2010	17360	Pumps	Pump Motor – Sta. 21	$22,815	$0
2010	17445	Field	Towable Light Tower	$41,556	$0
2010	17597	Field	Ice Machine – Field Yard	$3,117	Move to Non-specifics
2010	19410	Painting	Paint Interior Complete – Sta. 2 Tk 1 – Lake	$88,509	$48,620
2010	19622	Painting	Paint Interior Underside of Roof & 6' Upper Shell - Sta. 22 Canada Tk 1	$90,500	$85,635
2010	20019	Hydrants	Hydrants -	$200,300	$108,000

			Menlo Park Fire Protection District		
2010	20196	Structures	Fish Passage Facility - Upper Division Dam	$1,564,500	Advice Letter cap $1,315,000
2010	20244	Pumps	Energy Monitoring Program	$118,000	$0
2010	20254	Intangible Plant	Water Bottling	$7,700	Expense
2010	20591	Pumps	Replace Pump - Sta. 4-H	$42,472	$25,477
2010	20597	Pumps	Replace Pump & Add Energy Efficient Monitoring Equipment - Sta. 4	$42,472	$25,477
2010	20598	Pumps	Replace Pump & Add Energy Efficient Monitoring Equipment - Sta. 4-F	$42,472	$25,477
2010	20661	Pumps	Replace Pump & Flowmeter - Sta. 22-A	$60,200	$0
2010	20663	Pumps	Replace Pump - Sta. 22-B	$51,600	$0
2010	20752	Pumps	Replace Panelboard - Sta. 36-A	$155,833	$0
2010	20993	Field	Mobile Radio	$2,200	cancelled
2010	20993	Field	Truck Upfitting - 0.5 P/U - Pump Truck	$7,400	cancelled
2010	20993	Vehicles	0.5 Ton Pickup - Pump Truck	$32,000	cancelled
2010	21023	Office	Laptop Computers for Operators and Supervisors	$25,972	$0
2010		Meters	Small Meter Replacement	$197,100	$129,690
2011	19632	Storage	60K Gal. Tank - Skywood - Skyline Acquisition	$415,300	$0
2011	19633	Storage	250K Gal. Tank - Wunderlick - Skyline Acquisition	$606,400	$0
2011	20020	Hydrants	Hydrants - Menlo Park Fire Protection District	$208,000	$108,000
2011	20244	Pumps	Energy Monitoring Program	$121,000	$0
2011	26009	Mains	Los Trancos R&R	$226,820	$419,220
2011	20568	Storage	Ormondale Tank 3 Retrofit - Sta. 29	$90,400	$0
2011	20755	Field	Portable Storage Containers - Field Yard	$48,000	$0
2011	20886	Field	Mobile Radio	$2,200	Defer to 2012
2011	20886	Vehicles	Vehicle - Construction Superintendant	$33,500	Defer to 2012
2011	20896	Pumps	Replace Panelboard - Sta. 6	$161,000	$148,700
2011		Meters	Small Meter Replacement	$205,000	$133,581
2012	18134	Painting	Paint Exterior - Sta. 5 Intermediate Tank 8 & 9	$150,537	$122,773
2012	20021	Hydrants	Hydrants - Menlo Park Fire Protection District	$213,900	$108,000

2012	20068	Storage	5 MG Tank - Sta. 5 Intermediate Tanks	$3,205,000	$0
2012	20244	Pumps	Energy Monitoring Program	$124,000	$0
2012	20819	Field	Mobile Radio	$2,200	Defer to next GRC
2012	20819	Vehicles	New Vehicle - District Manager	$38,500	Defer to next GRC
2012	20904	Pumps	Replace Panelboard - Sta. 25	$166,000	$0
2012	21286	Pumps	Replace Panelboard - Sta. 38	$173,148	$0
2012		Meters	Small Meter Replacement	$213,200	$137,588

C. DISCUSSION

The Bear Gulch District has averaged $5,156,300 in recorded gross plant additions during the past five years (2004-2008).[29] The district's average gross plant addition request for the period of 2009-2012 is $8,647,700 which represents a 67.7% increase over historical recorded plant additions. It should be emphasized that the recorded plant additions themselves have exceeded the Commission authorized gross plant addition budgets during 2004-2007 by $5,738,600, which represents a 35% budgetary overrun of authorized additions for that period.[30] In the years since the last GRC (2006-2007 data), CWS has recorded at least $4,237,400 more gross additions than authorized, not including 2008 which is difficult to quantify due to interim rates. Because these additions have not been authorized (they are only mentioned once in a misleading sentence next to an unexplained table comparing authorized to recorded capital additions in Chapter 8 of the RO report) and are instead simply included in the 2009 beginning of year utility plant balance, they escape reasonableness review while significantly increasing rates.

[29] Gross plant additions include company funded plant additions as well as contributions and advance deposits for specific plant.

[30] CWS Response to DRA data request MD7-001. The authorized gross plant additions for this

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DRA issued multiple data requests investigating the significant mismatch between authorized and recorded capital additions for the last five years.[31] In its responses, CWS did not offer any meaningful explanation for the differences other than the fact that contributions and advances are estimated in the authorized additions column, while they derive from actual figures in recorded additions. DRA considers this level of recorded plant additions excessive, not compliant with previous Commission orders, and therefore recommends a systematic audit of actual capital additions and authorized budgets in the subsequent GRC, as was ordered in D.03-09-021 for all future CWS general rate cases.[32] On page 54 of that Decision, it states:

> "We will, therefore, require that Cal Water submit a report in each of its future district general rate case filings showing budgeted capital projects and actual expenditures. We expect these reports to compare the budgeted capital projects to actual expenditures, and to explain each deviation and deferral, with revised in-service dates for the deferrals. We will use this historic analysis to guide our evaluation of any proposed capital projects."

Since the excessive capital additions have not been justified or explained in any shape or form by CWS in this GRC, DRA recommends removing the $4,237,400 in known excess plant additions from the 2009 beginning of year balance until CWS can provide reasonable justifications for the unprecedented

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period averaged $4,054,600 while the recorded gross plant additions averaged $5,489,300.

[31] DRA data requests MD7-001 and NKS-007.

[32] According to CWS Response to DRA data request NKS-007, CWS does not believe it needs to comply with Order 3 of D.03-09-021 which states, "In all future general rate case applications, Cal Water shall present an initial showing with the major changes that led to the requested change identified and quantified. Each issue should include detailed explanations and justifications for the requested change, with cross-references to evidentiary support. All tables of data should be explained and analyzed. All necessary evidence should be included in the record."

level of budget overruns. On a going-forward basis, DRA's recommendation of $4,053,700 in average gross plant additions during 2009-2012 is approximately equal to historically authorized levels.

1) Carryover Projects

CWS identifies $3,626,500, $400,000, and $100,000 in 2009, 2010 and 2011 carryover projects respectively in its ratebase workpapers (totaling $4,126,500). However, in the Results of Operation report for the Bear Gulch District, CWS identifies $5,061,600 in carryover projects. DRA was not able to reconcile the two estimates, even after a clarifying data request was sent. DRA relied on workpaper figures as the more reliable total in order to determine its own estimate.

DRA discovered that CWS listed project 9958 for $402,100 to install a new generator at pump Station 4 as a carryover, when in reality both CWS and DRA agreed to disallow the project in the last settlement agreement.[33] This is a serious error on the part of CWS. It was misleading to portray a previously disallowed project as a carryover.[34] DRA also found that in its data request response, CWS mislabeled many advice letter projects as non-AL projects, and did not identify AL caps or CPUC budgets authorized in the last GRC.[35] Consequently, DRA does not have confidence that CWS is complying with Commission orders, settlement terms, or properly tracking advice letter projects.

Projects 4288, 12920, 12922, and 13154 for studies and improvements related to environmental compliance of the surface supply ($1,045,000 cap),

[33] D.06-08-011, Appendix H. http://docs.cpuc.ca.gov/published/Graphics/59194.PDF.

[34] DRA recommends that project 9958 be funded by shareholders since CWS contravened Commission order.

[35] CWS response to DRA data request MD7-008, Question 17.

projects 11106 and 11107 to design and construct a replacement for Woodside Reservoir ($1,620,000 cap) were approved in the last GRC with advice letter treatment and specific caps. The advice letter deadline for these projects is the effective date for new rates in the current GRC, which is January 1, 2011.[36] DRA recommends that these projects remain as advice letter projects with the existing deadlines and caps. CWS has not requested nor provided any evidence to support an extension of the deadline for the projects or that recovery above the AL cap is warranted. DRA calculated its carryover estimate by subtracting advice letter projects from the workpaper carryover totals, since advice letter projects have uncertain costs and completion dates, and may not occur at all.[37] Based on these changes, DRA estimates the carryover projects budgets as $959,400 in 2009, and $100,000 in 2011.

2) Main Replacement Program

CWS proposes a main replacement budget of $2,071,800 in 2009, $3,443,100 in 2010, $2,581,900 in 2011, and $2,893,989 in 2012 plant additions for a total of $11.0 million. CWS' proposed average main replacement budget is $2,747,697, which is a 111% increase over the five-year average internal CWS budget of $1,300,860.[38] It should be noted that although the historical CWS budgets are much lower than CWS' proposal in this GRC, the historical budgets do not correspond to any Commission authorized level of main replacement.[39] As well, the historical CWS' budgets do not necessarily relate to actual main replacement costs during that time period. CWS declined to provide actual

[36] D.06-08-011. OP 7, p.68.

[37] Advice letter projects are handled separately though a rate base offset.

[38] CWS General Report on the Results of Operation and Prepared Testimony, July 1, 2009, Appendix 7.

[39] Email communication with Tess Cayas of CWS, on January 5 2010.

historical costs for mains, services, hydrants and meters to DRA, despite multiple data requests.[40] In the absence of actual main replacement cost data, DRA recommends a main replacement budget of $1,090,500 in 2009, $1,953,400 in 2010, $1,449,000 in 2011, and $961,170 in 2012 for a total budget of $5.45 million. DRA's average recommendation is $1,363,500 per year[41] which is 5% more than the five-year average internal CWS historical budget.

Table 7-C. Historical Main Replacement Budget and Unit Costs

Bear Gulch	CWS Mains Budget ($)	Mains Length (ft)	Cost/Foot
2004	$2,253,300	5,460	$413
2005	$1,107,500	12,475	$89
2006	$1,636,700	14,190	$115
2007	$0	0	$0
2008	$1,506,800	9,354	$161
AVG	$1,300,860	8,296	$157

CWS' claimed justification for these projects usually asserts either numerous leaks or fireflow improvements as a justification for replacement of these mains, services and hydrants.

(a) **Fireflow:** In terms of fire flow, according to GO 103-A, "The utility shall not be responsible for modifying or replacing at its expense any existing facilities, which are otherwise adequate, in order to provide increased fire flow or duration due to changes in the standards after the initial construction."[42]

[40] See non-responsive CWS answers to DRA data requests MD7-016 and NKS-005. CWS states in the responses that, "This level of detail is not readily available as Cal Water District does not track its annual cost of facilities in this manner."

[41] This recommendation does not include the DRA recommended non-specific main replacement budget of approximately $204,000 per year.

[42] GO 103-A, VI. Fire Protection Standards, 3.Replacement of Mains A.Changes to Fire Code,

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CWS' replacement of pipe merely to improve fireflow cannot therefore be justified.

(b) **Leaks/100 miles of main:** Further, CWS provided the following response to ALJ O'Donnell's request for an exhibit showing CWS' methodology for mains replacement, "CWS annually determines the number of leak for each district on the basis of leaks per one hundred miles of main. This information along with the actual length of targeted mains in a district is used to set the annual target main replacement length." However, when DRA asked for the leaks per one hundred miles of main for projects in this GRC, CWS was unable to provide such information.[43]

(c) **Repair vs replacement:** When DRA asked CWS how it concluded a particular targeted main was beyond its "useful life", CWS responded: "In reality, one can extend the "useful life" of many facilities, but the cost to do so may outweigh the cost to replace."[44] However when DRA asked CWS if it did any analysis to show that the cost to repair was higher than the cost to replace for the targeted mains in this general rate case, CWS said it had not done such an analysis.[45]

DRA therefore concludes that CWS' is not able to effectively prioritize its specific hydrant, main and service replacement projects based on actual conditions of the pipe and using tools such as AWWA's "Decision Support System for

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p.25.

[43] CWS' response to DRA data request NKS-006, question 7, attached in Appendix B to the Chico District.

[44] CWS' response to DRA data request NKS-002, question 11, attached in Appendix B to the Chico District.

[45] CWS' response to DRA data request NKS-002, question 8, attached in Appendix B to the Chico District.

Distribution System Piping Renewal", which have been available since 2002.[46] DRA notes that other utilities, such as California American Water Company, routinely prepare a "Condition Based Assessment" document prepared by a licensed professional engineer to assess the condition of their transmission and distribution systems, in each district to identify and prioritize investment in transmission and distribution infrastructure.[47]

Table 7-D. Comparison between DRA and CWS Budgets and Average Unit Costs

Bear Gulch District	CWS Mains Budget	DRA Mains Budget	% Disallowance	DRA Cost per Foot ($/ft)	CWS Cost per Foot ($/ft)
2009	$2,171,100	$1,090,500	50%	161	348
2010	$3,443,099	$1,953,438	43%	161	276
2011	$2,581,900	$1,449,000	44%	161	200
2012	$2,893,989	$961,170	67%	161	340

DRA based its recommendation on several factors. First, the weighted average unit cost budgeted by CWS for main replacement in the Bear Gulch District was determined to be $157 per foot.[48] On a project by project basis, DRA examined the reasonableness of the main replacement proposed based upon any leak history provided,[49] DRA's calculated break rate, fire flow deficiencies, water

[46] In its response to DRA data request NKS-002, question 12, CWS replied it had not used this or a similar tool to evaluate its mains targeted for replacement in this general rate case. The response is attached in Appendix B to the Chico District.

[47] For example, in A.08-01-027, Cal Am conducted a condition-based assessment of its infrastructure for its Monterey district, and prioritized its proposals in that rate case based on the condition of the infrastructure.

[48] As stated before, these internal CWS budgets do not necessarily correspond to actual main replacement costs but they represent the only cost data that CWS provided to DRA.

[49] Although CWS was unable to provide break rates per 100 miles of main, it did provide leak history for some projects in a few districts.

quality concerns, pipe material type and vintage. For projects that DRA agreed were necessary and reasonable, the total costs for the main related portions of the project were adjusted by multiplying the feet of main to be replaced by $161 per foot[50] to produce an average representative budget.

In many cases, DRA observed that CWS would reference a similar recently completed project in its cost estimate, but when a cost per foot comparison was made the results differed significantly. An illustrative example is project 11098 for the Walsh Road 12" ductile iron (DI) main replacement. This project references project 14672 in Selma District for a 12" DI main project totaling 4,450 feet in 2006. The final agreed budget for the Selma project was $650,000 with an average unit cost of $146 per foot. Escalating for 3 years of 3% inflation and adding $25 per foot in extra paving costs required by the city of Atherton brings the total unit cost to $185 per foot.[51] In stark contrast, CWS estimates the Walsh Road costs to be an incredible $444 per foot or 240% of the reference cost estimate. Clearly, the Selma reference project was not correctly applied to the Walsh Road main replacement budgetary cost estimate. This type of gross overestimation of costs is demonstrated on a macro-scale by the wide divergence between costs per foot budgeted historically vs. what CWS estimates in this rate case proposal.

DRA recommends disallowing the following projects ID's: 11133, 19715, 20474, 20511 and 20526 as discussed in further detail below. DRA also recommends that the Commission direct CWS to develop a "condition-based assessment" prepared by a licensed professional engineer including a prioritization

[50] $161 per foot was used instead of $157 per foot to provide a buffer factor and since 2008 costs averaged very close to the five year average.

[51] DI projects are typically more expensive than PVC main replacement projects.

plan, a comparison of the cost to repair versus replacement, and an analysis of leaks/100 miles to justify its main replacement programs in future rate cases.

3) Project 11133 – Ladera Easement Main Replacement

CWS proposes $97,500 in 2010 to replace 600 feet of 8" steel main with 8" PVC that it claims is "in poor condition." However, CWS could document no leaks on this section of pipe since 1991 and provided no further project justification. DRA was unable to locate the project on the growth maps provided by CWS for the Bear Gulch District that purportedly show the physical geography where the replacement will occur. Thus, DRA recommends disallowing this main replacement project that has no history of leaks or catastrophic breaks and will have little to no fire flow improvements. DRA has removed the capital costs associated with this project from 2010 plant additions.

4) Project 19715 – Selby Lane Main Replacement

CWS proposes $1,296,700 in 2011 to replace 3900 feet of 6" and 8" cast iron with 12" DI main. CWS states that this project is necessary as it is "part of the long range improvement plan to increase flows in the low zone and to complete a large diameter transmission grid." However, CWS acknowledges that this segment of main was not mentioned in the WS&FMP as a recommended capital improvement. In the last 18 years, there has only been one leak documented by CWS and no history of catastrophic blow outs. This translates into an annual leak rate of only 0.08 per mile which is miniscule compared to other projects in the Bear Gulch District that DRA supports with leak rates above 1 leak per mile. CWS has not met the minimum burden of proof that replacing this cast iron main is necessary or prudent at this time. Therefore, the project should be disallowed. DRA has removed the capital costs associated with this project from 2011 plant additions.

5) Project 20474 – Waverly Street Main Replacement

CWS proposes $73,000 in 2012 for replacing 300 feet of 6" steel main on Waverly Street north east of Alma Street with 6" PVC main. CWS argues this project is necessary to improve flows and eliminate a small section of steel main. However, the existing 6" steel has no history of leaks according to CWS records dating from 1991. As well, there is no increase in fire flow associated with this project since the replacement pipe has the same diameter as the existing pipe. The project is unnecessary given the existing 6" steel main that has no history of leaks or deterioration and should be disallowed. DRA has removed the capital costs associated with this project from 2012 plant additions.

6) Project 20511 – Homewood Place Main Replacement

CWS budgets $266,200 in 2012 plant additions to replace 520 feet of 8" steel main with 8" PVC. CWS argues that this section of main has experienced several failures and "serves the USGS and they have critical life-science experiments that depend on a constant supply of water." However, the existing 8" steel has no history of leaks according to CWS records dating from 1991. As well, there is no increase in fire flow associated with this project since the replacement pipe has the same diameter as the existing pipe.

CWS' argument that one customer (USGS) should be given special treatment is inappropriate and contrary to established Commission principles of ratemaking and equity. If the USGS needs a guarantee of water deliveries beyond what is provided to other customers, they should be responsible for paying for such upgrades to ensure that their water service is not interrupted, instead of forcing all other ratepayers to subsidize a project that will mainly benefit one customer. As well, CWS has not documented any occurrence of water service shutdowns to the USGS which caused damage to water sensitive experiments. The project is unnecessary given that the existing 8" steel main has no history of

leaks or hydraulic limitations. CWS' justification of the project based on a single customer's needs is inappropriate, and should be disallowed. DRA has removed the capital costs associated with this project from 2012 plant additions.

7) Project 20526 – Middlefield Road Main Replacement

CWS proposes $862,600 in 2012 for 2020 feet of 12" ductile iron main to replace various lengths of 6" cast iron, 8" AC and 8" steel main. CWS argues that this section of main has experienced several failures and "serves the USGS and they have critical life-science experiments that depend on a constant supply of water." However, the existing mains have only leaked once in the last 18 years with no history of blow-outs, resulting in a leak rate of 0.15/mile compared to other projects that DRA supports which have annual leak rates between 1 and 10 leaks per mile.

CWS' argument that one customer (USGS) should be given special treatment is inappropriate and contrary to established Commission principles of ratemaking and equity practices. If the USGS needs a guarantee of water deliveries beyond what is provided to other customers, they should be responsible for paying for such upgrades to ensure that their water service is not interrupted, instead of forcing ratepayers to subsidize a project that will mainly benefit one customer. As well, CWS has not documented any occurrence of water service shutdowns to the USGS which would cause damage to water sensitive experiments. The project is unnecessary given the low leak rate and should be disallowed. DRA has removed the capital costs associated with this project from 2012 plant additions.

8) Project 26009, Los Trancos Main Replacement

CWS proposes $226,820 in 2011 to replace 2500 feet of mislabeled 2" polybutylene main with 2" PVC.[52] CWS has documented eight leaks (one of which was caused by a contractor hitting the main) over the last five years. This results in an average leak rate of 1.7 per mile during this period. DRA agrees with the need to replace the mains which appear to be defective and have a high leak rate. However, DRA disagrees with CWS' proposal to replace the mains with 2" PVC pipe. CWS' proposal would violate GO 103-A which states that when a main is replaced for reasons other than fire flow, the new main should meet current fire standards and the minimum diameter should be 6".[53]

DRA recommends that CWS use 6" PVC main for the replacement instead of 2" PVC which would not comply with GO 103-A. DRA recalculated the cost of the project based upon the district-wide average main replacement cost of $161 per foot resulting in a total project cost of $402,500 not including $16,720 for 21 1" services which DRA supports as well. Therefore DRA recommends the Commission approve this project at a cost of $419,220 in 2011.

9) Hydrant Replacement Program, 2009 – 2012

CWS currently replaces fire hydrants both during main replacement and has a separate program in cooperation with the Menlo Park Fire Protection District to replace high priority hydrants identified by the Fire District based on current fire code standards. The Menlo Park Fire District program plans on replacing 20 high priority hydrants each year for 4 years, for a total of 80 hydrants out of 122 listed in response to a DRA data request. DRA generally supports hydrant replacement

[52] The main is mistakenly listed as galvanized and PVC in the Los Trancos Water System acquired in 2005.

[53] III. Standards of Design and Construction. 3. Distribution System. C.2. Minimum Pipe Sizes. In no event shall the minimum pipe size for new mains be less than six inches in diameter when

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when the opportunity arises during main replacement and targeting of deficient hydrants for upgrades.[54]

DRA disagrees with the cost of the hydrant projects. CWS estimates average hydrant costs of around $10,000 per hydrant in the Bear Gulch district. DRA requested hydrant replacement expenditures on an annual basis for each district, but CWS declined to answer, stating that "it does not track its annual cost of facilities in this manner."[55] Based upon capital budgets in the neighboring Mid-Peninsula district which used an average fire hydrant cost of $5,400 including installation, overhead, labor and paving, DRA adopted this value for hydrants in Bear Gulch. As a further point of reference, in a recent GRC with San Jose Water Company, which is also in a similar geographic area to Menlo Park and Atherton, the company agreed to an average cost of $4,000 per hydrant.[56] Therefore DRA recommends adjusting CWS' budget for all fire hydrant projects to reflect a cost of $5,400 per hydrant as shown in the summary comparison table of differences between DRA and CWS.

10) Service Replacement, 2009 – 2012

CWS currently replaces service connections during main replacement projects in the Bear Gulch District. In neighboring districts such as the Mid-Peninsula which includes San Mateo and San Carlos, a 1" service is budgeted to cost less than $2,000 on average, while a 2" service is estimated to cost around $2,700. DRA notes than CWS requests a substantial non-specific service

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used in conjunction with a fire protection system.

[54] Often dry barrel hydrants are replaced with wet barrel models which have separate valves at each hose connection allowing more flexibility during fire fighting situations.

[55] CWS Response to MD7-016, Question 1.

[56] A.09-01-009, Rebuttal Testimony of SJWC p.3-7. Final settlement : http://docs.cpuc.ca.gov/published/Graphics/110172.PDF

replacement budget of approximately $500,000 per year in addition to the $236,000 requested on an annual basis associated with main replacement. This is a total budget of $736,000 per year for service replacement. DRA's average specific service replacement budget is $572,000 per year.[57]

Using information from a CWS' response to a DRA data request,[58] plant additions for all service sizes for the last 5 years have averaged $540,000 in 2009 dollars assuming a 3% inflation factor. Thus, CWS is asking for $200,000 more per year for services than it has historically incurred in costs. Two specific main replacement projects in 2010, #11136 on Portola Road and #11097 on Westridge Drive, show significantly lower budgets for 2" services ($2,400 and $2,000 per service, respectively). Therefore, DRA believes an average cost of $2,000 per service is reasonable and given the historical costs incurred for services, more than sufficient to complete the projects supported by DRA.

11) Project 20068 – New 5 MG Storage Tanks at Station 5

CWS proposes $3,205,000 in 2012 for one or two storage tanks at Station 5 in the 400 zone which feeds into the low zone (220). CWS alleges a storage deficit in the 400 zone and 220 zone of 1.8 MG and 12.7 MG, respectively, based upon the WS&FMP (Water Supply & Facilities Master Plan). DRA strongly disagrees with this assessment. The WS&FMP performed a faulty and unsubstantiated analysis of the storage and pumping needs of the district. The WS&FMP lists three components of storage requirements as criteria for meeting storage standards. These components are operational (or equalization) storage which is assumed to be 25% of Maximum Day Demand (MDD) in the absence of

[57] DRA recommends a budget of approximately $460,000 in non-specific services + $112,000 in specific service projects, totaling $572,000 per year, which is $32,000 greater than historical.
[58] CWS response to DRA data request MD7-001, Question 1.

a diurnal demand curve, fire reserve storage which is assumed to be the highest fire flow for the land use in each pressure zone of Bear Gulch District,[59] and finally emergency storage which is assumed to be 50% of MDD (or one average day demand). The Bear Gulch District has a total storage volume of 9.9 MG.

DRA investigated all components of storage requirements claimed by the WS&FMP, and found that there is no governing standard for emergency storage in the state of California.[60] CWS claims in its WS&FMP that CDPH recommends an emergency storage component of at least 25% of the MDD and up to a maximum of one average day demand (ADD). When DRA asked CWS to provide the exact citation and quote from the Drinking Water Regulations in Title 22, Chapter 16 where CDPH calls for a minimum emergency supply in each pressure zone equivalent to the average day demand, CWS was unable to do so.[61]

Instead, DRA discovered that CDPH recommends that public water systems should be able to meet 4 hours of Peak Hour Demand (PHD)[62] with storage, source capacity and/or emergency connections in each pressure zone.[63] In pressure zone 220, the PHD is equivalent to 4.14 MG over a four hour period.[64]

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[59] In zone 220, the maximum fire flow is 3,500 gpm for 3 hours and in zone 400, the fire flow is 3,000 gpm for 3 hours.

[60] CWS admits that the AWWA has no standard for emergency storage in response to DRA data request MD7-007, Question 5, and MD7-012, Question 2. Similar statements are made in many of the WS&FMP documents as well.

[61] DRA issued data request MD7-013 on November 25, 2009 and received a response on January 27, 2010. CWS stated that the consultant who prepared the WS&FMP had used an out-dated reference that incorrectly cited pre-1994 CDPH drinking water standards.

[62] PHD is typically calculated by multiplying the MDD by a peaking factor of 1.5 according to CDPH, Drinking Water Regulations, Title 22, Chapter 16, Article 2, §64554. New and Existing Source Capacity (b)(1).

[63] CDPH, Drinking Water Regulations, Title 22, Chapter 16, Article 2, §64554. New and Existing Source Capacity (a)(1) for systems with more than 1,000 service connections.

[64] 16.56 MGD is the MDD in zone 220 times a 1.5 peaking factor to convert to PHD divided by 6 hours = 4.14 MG. At build out this increases to 4.5 MG based upon a MDD of 18.1 MGD.

Most of the SFPUC turnouts feed the 220 zone, which have a total capacity of 30.5 MGD. As well, the filter treatment plant can produce up to 6 MGD for the 220 zone. Thus, the district can provide 6.1 MG[65] over a four hour period to the 220 zone, leaving a surplus of 2 MG. Similarly, zone 400 has a total source capacity of 16.1 MGD which is 2.68 MG available over 4 hours. The PHD for zone 400 is only 0.6 MG over 4 hours[66] which leaves a surplus of 2.1 MG during this time frame.

The CDPH standard is similar to what the WS&FMP refers to as the operational storage requirement, but the CDPH requirement allows source capacity[67] and emergency connections to count on an equal basis with storage volumes in meeting the PHD standard. The WS&FMP creates an entirely separate category of emergency storage which has no precedent, above and beyond operational and fire reserve storage.[68]

In the event of an electrical power outage or other emergency, CWS is installing back-up power generators at Station 2 (the 6 MGD filter treatment plant) and Station 4 (the adjacent 14.7 MGD pump station), and already has emergency generators at Station 5, 20 and 27. The Bear Gulch District has two emergency boosters rated at 150 and 140 HP, which can each replace a booster pump during a power failure. Furthermore, Bear Gulch District has access to five standby

[65] (30.5 MGD + 6 MGD) divided by 6 hours = 6.1 MG over 4 hours.

[66] 2.4 MGD x 1.5 divided by 6 hours = 0.6 MG.

[67] "Source capacity" means the total amount of water supply available, expressed as a flow, from all active sources permitted for use by the water system, including approved surface water, groundwater, and purchased water. CDPH, Drinking Water Regulations, Title 22, Chapter 16, Article 1, Definitions §64551.40.

[68] Fire reserve storage serves as an emergency storage in most situations.

emergency connections, three with Menlo Park and two with Redwood City which tie into zones 145 and 680.[69]

Therefore, the WS&FMP incorrectly states that there is currently a storage capacity deficit in the lower zones of the Bear Gulch district. In actuality, the Bear Gulch District has more than sufficient storage, source capacity and emergency connections to meet all existing and build-out operational and fire reserve storage requirements. DRA has removed the capital costs associated with this project from 2012 plant additions.

12) Vehicle Replacement, 2009 – 2012

CWS apparently proposes to replace seven vehicles over the 2009-2012 rate case cycle.[70] In its ratebase workpapers, CWS listed ten vehicles for replacement, but showed one project (20888) as a duplicate and two other vehicles with no mileage data (projects 20753 and 20993), as they were "not in the system." In response to a data request asking for clarification on all vehicles scheduled for replacement, CWS provided an amended list that included project 20753 for a new leak truck, but excluded project 20993 and 20888. DRA used the data request response with mileage data for seven vehicles to analyze CWS' proposal.

Project 20753 requests $98,000 in 2009 for a new leak truck to replace the 2.5 ton F-650 flatbed, which has a gross vehicle weight rating (GVWR) of over 19,000 lbs. According to the most recent DGS criteria for vehicle replacement, heavy duty trucks with a GVWR of over 8,500 lbs are eligible for replacement at 150,000 miles. Based on the current mileage and the date of purchase, DRA

[69] WS&FMP p.4-11.

[70] Project 20993 to replace vehicle V099056 was acknowledged by CWS as a duplicate of project 20753 to replace V220010.

calculates that this vehicle will exceed 150,000 miles in 2013. Thus, project 20753 should be deferred to the next GRC when the vehicle will be eligible for replacement.

Project 20819 requests $40,700 in 2012 for a new vehicle for the district manager to replace a 2004 Dodge Durango with 71,105 miles as of September 2009. CWS states that this vehicle will be replaced with a four-wheel drive train (4WD) vehicle in 2012. The DGS criteria for 4WD vehicle replacement has the same 150,000 mile replacement criteria as heavy duty vehicles with a GVWR over 8,500 lbs. DRA asked CWS for all existing 4WD vehicles in this GRC that are scheduled for replacement. Since CWS only provided a list for 2009, DRA assumed in 2010-2012 that if a 4WD vehicle is planned on being purchased, it is replacing an existing 4WD vehicle. The replacement criteria for project 20819 will not be satisfied until 2015 as calculated by DRA and should be disallowed.

Based on DGS mileage criteria, DRA recommends deferring project 17714 and 21065, both originally scheduled for 2009, until 2010, and 2011, respectively, and deferring project 20886 originally scheduled for 2011 until 2012. DRA notes that the Commission has previously ruled that the most recent DGS criteria were the appropriate standards for replacement in rate cases involving both CWS and Southern California Water Company.[71] DRA discovered that DGS no longer uses an age based criteria (formerly 8 years) and now relies upon mileage as the sole metric to determine replacement.[72] DGS states that, "The decision whether to retain, reutilize, or dispose of any vehicle not meeting the minimum replacement criteria shall be based on an inspection taking into account the following factors:

- Current mechanical condition.

[71] D.06-01-025 for Southern California Water Company, and D.07-12-055 for CWS.

[72] DGS Fleet Handbook, April 22, 2008. http://www.documents.dgs.ca.gov/ofa/handbook.pdf.

- Previous maintenance and repair record.
- Extent of needed repairs and availability of parts and life expectancy of vehicle after repair.
- Current sale value.
- Cost and availability of replacement unit and accessories.
- Owning agency's ability to replace unit.

Since CWS did not submit a report to describe why an exception to the DGS criteria should be made to any of its vehicle replacements in Bear Gulch, DRA recommends two vehicle projects (20753 and 20819) at a total estimated cost of $138,700 be disallowed while three vehicle projects be deferred to later years in the GRC.

13) Project 17797 - Emergency Generator Station 2

CWS proposes $284,200 in 2009 capital additions to add a 300 kW emergency generator at Station 2 which receives water from the Bear Gulch reservoir and operates the filter treatment plant. DRA agrees with the need to provide an emergency source of power to the 6 MGD filter treatment plant but disagrees with the CWS' cost estimate. In its project justification, CWS references a purchase order for a 275 kW emergency generator for under $90,000. DRA scaled this cost for a 300 kW generator to arrive at a cost of $96,000. In CWS' total budget, a cost of $110,000 was listed for the generator which is $14,000 higher than DRA's estimate. Therefore, DRA recommends approving this project at an adjusted cost of $270,000 as shown in the summary Table 2.

14) Project 19632 – 60,000 Gallon Skyline Tanks

CWS proposes $415,300 in 2011 capital additions to replace two 60,000 gallon bolted steel tanks in the recently acquired Skyline County Water District.

CWS states that this project is necessary because the tanks are deteriorated, do not have a cathodic protection (CP) system installed, and cannot be rehabilitated in a cost-effective manner. DRA examined the tanks during its site tour and requested more information on the level of degradation of the tank surfaces in subsequent data requests.

According to the most recent tank inspection in 1999,[73] the consultant determined that with regular maintenance and painting, the tanks would continue to provide useful service and did not recommend replacement. CWS stated that it disagreed with the consultant's report, but did not explain its reasons. CWS said that a new inspection was scheduled for the week following its data response, and that the results of that inspection would be provided to DRA. CWS failed to provide this updated inspection report to DRA, however. DRA asked CWS if it has examined the feasibility of installing a CP system along with recoating the interior, and fixing minor deficiencies such as tank roof corrosion and installing anti-climb devices on the ladders. CWS responded that it had not examined this course of action, and that the acquisition was approved by CDPH with the understanding that the tanks would be replaced.[74] However, CDPH does not perform any reasonableness review of capital additions, nor were any water quality concerns cited.

It is contrary to the efficient operation and prudent use of resources to prematurely retire facilities that can be rehabilitated at a much lower cost. CWS is not proposing an increase in storage with the replacement tanks. The most recent consultant report does not recommend replacement, but instead calls for improved maintenance and correction of minor defects in ancillary structures. This project

[73] CWS response to DRA data request MD7-006, Question 9.
[74] Ibid.

is unnecessary, imprudent and should be denied. DRA recommends that the $415,300 in capital additions for project 19632 be disallowed.

15) Project 19633 – 250,000 Gallon Wunderlick Tank

CWS proposes $606,400 in 2011 capital additions to add 0.25 MG of storage in the recently acquired Skyline system. The existing Skyline system has 0.50 MG of storage, but CWS claims this is insufficient to meet peak demands. CWS did not provide any documentation of the insufficient pressures it claimed occur in some areas of the Skyline system that would be corrected by the addition of this new tank. Given the fact that CWS has routinely claimed in its WS&FMP that pressures between 30 and 40 psi during peak hour demand periods are unacceptable, DRA is skeptical of CWS' claims. During hours of peak demand, GO 103-A only requires 30 psi at service connections.[75]

> "Each potable water distribution system shall be operated in a manner to assure that the minimum operating pressure at each service connection throughout the distribution system is not less than 40 psi nor more than 125 psi, **except that during periods near PHD the pressure may not be less than 30 psi**."

Since DRA supports an intertie connection between Skyline and Woodside Mutual Districts (project 20389), this will facilitate the ability of CWS to tie into water from the Woodside system into the Skyline system during high demand periods. This project is unnecessary, insufficiently justified, and should be denied. DRA recommends that the $606,400 in capital additions for project 19633 be disallowed.

16) Project 17834 – RTU SCADA Replacement

CWS proposes $64,800 in 2009 to replace five Remote Terminal Unit (RTUs) for its SCADA system. DRA agrees with the need to upgrade old RTUs

[75] GO 103-A. 6A. Variations in Pressure, p. 30.

that were identified in the Property Condition Report of the WS&FMP, but disagrees with the CWS cost estimate. DRA based its cost estimate on a recent RTU replacement (project 5711) at the Woodside Reservoir in 2004 which cost $3,620 and included new lighting. Scaling for five years of 3% inflation and multiplying by five RTU devices, DRA recommends approving this project at a revised cost of $21,000 in 2009.

17) Project 20144 – Rapid Response Emergency Command Center

CWS proposes $108,000 in 2009 capital additions for a new emergency command center to be stationed at its field yard adjacent to the filter treatment plant. CWS claims that its districts are not adequately prepared for a disaster and the addition of this towable trailer will sustain a small working crew of six staff members for one week. During the site visit, DRA examined the trailer and stored supplies which had already been purchased. Although, DRA appreciates the need to prepare for emergencies and have supplies and strategic response plans formulated ahead of time, it is unclear what specific benefits this trailer will provide that could not be handled with existing plans and equipment. For instance, the Emergency Response Plan (ERP) that CWS states will integrate the efficient use of the command center, only states that the District Manager can activate the center if appropriate, with no further detail mentioned. When DRA asked for implementation guidelines for priorities, actions and procedures for the command center during an emergency event, CWS merely pointed back to the ERP which contained no detail on the command center.

In its project justification, CWS states that 2 members of the crew would stay at the trailer in base camp to "handle logistics and communication functions," but DRA did not observe any SCADA or system monitoring capability within the trailer. It would appear that the only reason for crew members to stay in the trailer is if the field office was destroyed or rendered inhospitable. In terms of enabling

crews to make field repairs, CWS argues that the trailer could be towed and an ATV (all-terrain vehicle) which was also purchased would be hauled in the trailer to allow crews to "move materials and backfill to the repair site." Since CWS already has numerous vehicles it uses for repair work, DRA sees little advantage in towing a large trailer for leak repairs, especially given some of the narrow roads present in many areas of the district. Although the ATV might be useful in some situations, this vehicle could easily be towed by a regular leak truck, without the entire trailer. In summary, DRA remains unconvinced that the towable trailer and supplies is a useful addition to CWS' ability to respond to emergency situations. Although many individual pieces of equipment are undoubtedly useful to have on hand during emergencies, they are minor purchases that could be handled as non-specific items or expensed. Therefore, DRA recommends that the $108,000 in capital additions for the emergency command center be disallowed.

18) Project 20744 – Replace Tank Berms - Station 30 Tank 1

CWS proposes $49,000 in 2009 capital additions to replace a tank berm that was ripped out during a recent tank painting at Station 30. DRA asked CWS for clarification of the actual budget and scope of the costs incurred. In response CWS stated that total costs for the project had amounted to $13,624 exclusive of capitalized interest (which is calculated separately). Thus DRA recommends this project be approved at a revised cost of $13,624 in 2009 due to actual booked costs being significantly lower than projected.

19) Small Meter Replacement, 2009-2012

CWS proposes $189,500 in 2009, $197,100 in 2010, $205,000 in 2011 and $213,200 in 2012 capital additions in order to replace 809 meters per year. CWS' proposal represents an average cost of $234 per meter in 2009 with increasing unit costs in subsequent years. DRA believes these costs are overestimated. Since meter replacement costs do not vary widely between districts, South San Francisco

can be used as a reference cost estimate. DRA calculated South San Francisco average meter cost to be $156 per meter in 2009. Applying the average unit cost calculated to the Bear Gulch district, DRA recommends approving a revised budget of $125,913 in 2009, a budget of $129,690 in 2010, a budget of $133,581 in 2011 and a budget of $137,588 in 2012.

20) Project 17445 – Towable Light Tower

CWS proposes $41,556 in 2010 capital additions for a towable light tower that would be used during night time repair and main replacement work. CWS states that the existing light stands it uses for night work have to be moved too often. This project also includes a larger generator in order to give CWS the "ability not to constantly refuel smaller generators to keep the lights going." DRA notes that CWS acknowledges that it already has light stands that are functional and the only reason to buy a towable light tower is to reduce the frequency of moving light stands. CWS provides no information on how often light stands currently need to be moved or generators need to be refueled and how this is a burden to main repair work crews. Since main installation work is typically performed by licensed contractors, they should be able to provide their own equipment in terms of lighting, or at the very least make due with the existing light stands owned by CWS. DRA sees no need for this project, and recommends it be disallowed.

21) Project 19410 – Paint Interior Station 2, Lake Tank 1

CWS proposes $88,509 for interior painting in 2010 to its Lake Tank 1 at Station 2. DRA examined the condition of the tank and agrees that the repainting is necessary and prudent. DRA disagrees on the cost estimate however. CWS referenced a similar project at Station 32 in the Mid-Peninsula district at Bel Aire Tank 1 which was completed in 2007. This capital addition was recorded in 2007

at a total cost of $61,330[76] for 5,906 square feet of painting. DRA scaled the cost of the Bel Aire tank painting to the 4,682 square feet for the Lake Tank 1 and escalated by 3 years of inflation to arrive at its estimate of $48,620. Therefore, DRA recommends that this project be approved at a revised cost of $48,620 in 2010.

22) Project 19622 – Paint Interior Station 22, Canada Tank 1

CWS proposes $90,500 for interior painting in 2010 to its Canada Tank 1 at Station 22. DRA examined the condition of the tank and agrees that the repainting is necessary and prudent. DRA disagrees on the cost estimate, however. CWS referenced a similar project at Station 28 in the Bear Gulch district at Ladera Tank 1 which was completed in 2007. This capital addition was recorded in 2007 at a total cost of $94,781[77] for 5,026 square feet of painting. DRA scaled the cost of the Ladera tank painting to the 4,541 square feet for the Canada Tank 1 and escalated by 3 years of inflation to arrive at its estimate of $85,635. Therefore, DRA recommends that this project be approved at a revised cost of $85,635 in 2010.

23) Projects 20591, 20597, & 20598 – Replace Pumps, Energy Monitoring

CWS proposes $127,416 in 2010 capital additions to replace three pumps and add energy monitoring equipment. CWS states that pumps 4-H, 4-I, and 4-F are all operating with low efficiency and should be replaced. DRA examined the pump test results for the pumps in question and agrees that the pump efficiency is relatively low (< 50%) for all three pumps. According to the pump test results, replacing the pump and motor for all three pumps will produce up to $56,000 in

[76] CWS response to DRA data request MD7-001.

[77] CWS response to DRA data request MD7-001.

annual operating cost savings, resulting in a short payback period of less than five years. DRA supports the pump and motor replacement components of this project but disagrees with the energy monitoring equipment additions. DRA recommends that CWS carry out a pilot program for the energy monitoring program in Marysville, and removed the energy monitoring portions of this project from the cost estimates. DRA recommends that each pump replacement project be adjusted to $25,477 for a total of $76,431 in capital additions in 2010.

24) Projects 20661& 20663 – Replace Pumps & Flow meters

CWS proposes $60,200 and $51,600 in 2010 capital additions to replace pumps A and B, respectively, at Station 22. CWS states that project is necessary because the existing pump is undersized to meet pressure demand, and the pumps are of low efficiency. Station 22 pumps into zone 880 which has a peak hour demand of 0.02 MGD.[78] Both pumps A and B have a 100 gpm capacity which results in a total capacity of 0.29 MGD. It is clear that the pumps have more than adequate capacity to meet peak hour demands for zone 880. The WS&FMP also lists a fire flow of 2.16 MGD (1,500 gpm) for this area based on the square footage of the single family residences in the zone. Although the pumps cannot currently meet this fire flow requirement, the Commission does not require CWS to replace otherwise functional facilities to meet new fire flow requirements.[79]

DRA confirmed that the efficiency of both pumps are low (< 50% operational plant efficiency), but notes that the pump test results only estimate an annual savings of approximately $1,000 per pump by maximizing efficiency though replacement.[80] Thus, ratepayers would be asked to fund projects with at

[78] WS&FMP p.8-9. Table 8-3A.

[79] GO 103-A. VI. Fire Protection Standards. 3. Replacement of Mains. A. Changes to Fire Code. p.25

[80] CWS response to DRA data request MD7-017, Question 5.

least a 55 year payback period (not including rate of return or net to gross multiplier effects which would increase the payback period further) with only marginal benefits to fire flow. CWS did not specify the pumping capacity of the replacement pumps in response to DRA's request for more detailed information so it is impossible to quantify what benefits would be realized.[81] These projects are unnecessary at this time and DRA recommends that the $111,800 in total capital additions for projects 20661 and 20663 be disallowed.

25) Project 17360 – Replace Pump Motor, Station 21

CWS proposes $22,815 in 2010 capital additions to replace the pump motor for Station 21. CWS states that this project is necessary to improve overall pump efficiency and provide reliable flow data. Pump 21-A has a design flow of 700 gpm or 1.0 MGD. CWS provided no information on the motor's condition or specifications in its filing, but the WS&FMP stated that pump station 21 was in "okay" condition as of September 2008. The pump's most recent pump test shows an operational performance efficiency (OPE) of 47.5% which is border line on the low side. It is not clear how replacing the pump motor will provide more reliable flow data or if the motor is operating inefficiently. The OPE is lower than recommended, but no pump test data was provided to estimate the annual operating cost savings that would be see as a result of replacement. The WS&FMP does not recommend replacement for this pump and motor until 2017. Therefore, the project is unnecessary at this time and DRA recommends that the $22,815 in capital additions for project 17360 be disallowed.

26) Project 18138 – Paint Interior, Station 5, Tank 8

CWS proposes $54,389 in 2012 capital additions to paint the underside of Tank 8's roof and seven feet of the upper shell, as well as replace a surrounding

[81] CWS response to DRA data request MD7-015, Question 23 and 24.

berm. DRA requested more information regarding the scope, justification, and cost estimate for this project in a data request.[82] CWS failed to provide the required details for this project even after DRA informed CWS that the missing documents were not included with the rest of the data response. Therefore, the project is unsubstantiated and should be denied. DRA recommends that the $54,389 in capital additions for project 18138 be disallowed.

27) Project 20568 – Ormondale Tank Retrofit

CWS proposes $90,400 in 2011 capital additions to include "rupture resistant piping" at Tank 3 located at Station 29. DRA requested information regarding the scope, justification, and cost estimate for this project in a data request.[83] CWS failed to provide the required background information, scope and justification for this project. Therefore, the project is unsubstantiated and should be denied. DRA recommends that the $48,991 in capital additions for project 20568 be disallowed.

28) Project 20755 – Portable Storage

CWS proposes $48,000 in 2011 capital additions for five 10 feet long and three 20 feet long storage containers. CWS states that the smaller containers will be used to house files, records and business documents, along with small parts, and bottled water. CWS states that one of the larger containers will house recycling material, and the other two will serve as a "secondary field office and command center" during emergency conditions. DRA appreciates the need for storage space, but notes that it did not observe nor did CWS provide any information regarding the lack of storage space at the Bear Gulch field yard during the site tour. DRA also notes that two of these storage containers will fulfill

[82] DRA data request MD7-015, Question 28, submitted December 14, 2009.
[83] DRA data request MD7-015, Question 26, submitted December 14, 2009.

almost the exact same function as the proposed "Rapid Response Emergency Command Center" in project 20144 which DRA does not support. There is no reason to believe that if the field yard office is evacuated due to an earthquake or other emergency event that the portable storage containers will be any safer, or also not be evacuated. Due to insufficient justification, DRA recommends that the $48,000 in capital additions for project 20755 be disallowed.

29) Project 21023 – Laptop Computers

CWS proposes $25,972 in 2010 capital additions to purchase ten laptop computers, broadband modems, and associated hardware and software. CWS states this project is necessary for remote access to the SCADA system for field personnel and supervisors/operators who would like to be able to work from home after work hours. One alternative that CWS discounted was using cell phones to communicate with personnel at the field yard who have direct access to the SCADA system and controls. CWS claims that the results for this alternative were "poor at best and frustrating for all," with no further elaboration.

DRA appreciates the need for certain individuals to have access to the SCADA system, but believes that simply calling the field office via cell phones is the most efficient and appropriate way to handle such situations. It is not at all clear what specific issues regarding cell phone communication was "poor at best or frustrating for all." As well, having mobile laptops that employees are taking home with SCADA access could present security vulnerabilities. That is, if an unauthorized individual gained access to a laptop with SCADA control capability, serious harm to the water distribution and supply system could result. Since CWS has not examined this potential threat, and given the insufficient justification for this project, DRA recommends that the $25,972 in capital additions for project 21023 be disallowed.

30) Project 20187 – Increase Pump Capacity Station 3

CWS proposes $442,900 in 2009 capital additions to replace pumps, add VFD motors and to increase the pumping capacity of Station 3. As part of a settlement reached with California Department of Fish and Game (CDFG) to improve steelhead trout and other fish passage, CWS agreed to reduce average diversions from the Bear Gulch Creek at the Woodside Diversion Dam (Upper Diversion) while increasing diversions downstream at Station 3. Under the new agreement between CWS and CDFG, the maximum diversion during the year will be between December 15 and May 31 when up to 9.0 cubic feet per second (cfs) will be allowed at Station 3. The current pumping capacity of Station 3 is approximately 4.7 cfs. DRA supports CWS' effort to increase pumping capacity in order to maximize surface water production during wet months while maintaining adequate bypass flows for ecological protections in the watershed. DRA recommends approving this project, at a cost of $442,900 in the year 2009.

31) Project 20196 – Fish Passage Construction

CWS proposes a total of $1,564,500 in 2010 and 2011 capital additions for a fish passage facility[84] to meet requirements for enhanced ecological conditions relating to steelhead trout and other fish per an agreement with the California Department of Fish and Game (CDFG). DRA is generally supportive of the efforts to protect the livelihoods of the local fish populations in the watershed and maintain a healthy and bio-diverse ecosystem. DRA's main point of contention for this project is CWS' cost estimate. CWS uses a 25% contingency factor for the roughened channel ($438,000) and the fish screen portion of the project ($219,000) with no justification for this abnormally high contingency, then inexplicably increases both components to $460,000 and $230,000 and finally

[84] The facility will either consist of a fish ladder or a roughened channel to allow fish to climb the 10 foot tall concrete dam at the Upper Diversion point during their spawning run.

applies another contingency factor of 10% (totaling $112,500) on top of those already inflated figures. CWS also introduces a 6% price escalation on all items, without any evidence that prices for fish screens and roughened channels are increasing at 3% per year. DRA used a 10% contingency factor on all items to calculate that the total budget is overestimated by at least $250,000 and thus recommends that the project be approved via the advice letter process with a total budgetary cap of $1,315,000.

32) Project 20752, 20896, 20904 & 21286 – Replace Panelboard at Station 36, Station 6, Station 25 & Station 38

CWS proposes $155,833 in 2010, $161,000 in 2011, along with $166,000 and $173,148 in 2012 capital additions to replace one panelboard each at Station 36, Station 6, Station 25 and Station 38. According to CWS, panelboard 36-A is 21 years old, the Station 6 panelboard is 40 years old, while the other two are currently 25 years old. In its project justification, CWS claims that it is difficult to obtain replacement parts for panelboards at this age. However, in contradiction to this statement other water utilities such as San Jose Water Company typically replace panelboards after 40 years of service. When DRA asked CWS to document the fact that replacement parts were unavailable, CWS merely replied that the existing space in older panelboards does not allow for easy design upgrades.[85]

CWS' answer was non-responsive to the question at hand, namely, to provide evidence that replacement parts are hard to come by after the boards have reached 20 years of age. CWS instead spoke about the difficulty in performing upgrades, which was not a justification for these projects. The only concrete piece of evidence CWS offered was the fact that GE no longer manufactures the 206 series starter circa 1980, but instead offers the "slightly different" 306 series

[85] CWS response to DRA data request MD7-007, Question 3.

starter.[86] However, CWS did not claim or provide any evidence that a 306 series starter could not fit in the existing space on a panelboard where a 206 series starter was installed. In the absence of evidence that replacement parts are unavailable or incompatible with the existing panelboards, and given other water utilities' policy of extending the panelboard life till at least 40 years of age, DRA recommends disallowing the capital additions associated with projects 20752, 20904, and 21286. DRA recommends approving project 20896 at an adjusted cost of $148,700 after removing an undocumented $12,300 in price escalation.

33) Non-specific Capital Budgets, 2009 to 2012

CWS proposed $1,330,700, $1,358,800, $1,390,100, and $1,420,400, respectively in plant additions for non-specifics in the four years from 2009 to 2012. CWS non-specific estimates are based on a 10-year average with a 2% yearly escalation factor. DRA agrees with using the 10-year average, but has used escalation factors for 2009 through 2012 from the May 2009 Energy Cost of Service Branch escalation factors memo. These factors are: 2009 = (5.5)%; 2010 = (0.1)%; 2011 = 2.0%; 2012 = 2.7%. Using these escalation factors the non-specific estimates are $1,232,700, $1,231,500, $1,256,100, and $1,290,100 for 2009, 2010, 2011, and 2012 respectively.

D. CONCLUSION

DRA's recommendations have been incorporated in the calculations for DRA's recommended Plant in Service as shown in Table 7-1 and Table 7-2.

[86] Ibid.

TABLE 7-1

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

PLANT IN SERVICE

TEST YEAR 2011

Item	DRA	CWS	CWS exceeds DRA Amount	%
	(Thousands of $)			
Plant in Service - BOY	83,832.0	95,873.1	12,041.1	14.4%
Additions				
Gross Additions	3,703.2	8,132.4	4,429.2	119.6%
Capitalized Interest	87.4	187.8	100.4	114.9%
Cap. Int. Plant Equiv CWIP	0.0	0.0	0.0	0.0%
Retirements	(150.0)	(150.0)	0.0	0.0%
Net Additions	3,640.6	8,170.2	4,529.6	124.4%
Adjustments				
Gen. Plant allocated to contracts	(421.0)	(574.7)	(153.7)	36.5%
Historic Capitalized Interest	(92.7)	(92.7)	0.0	0.0%
Plant in Service - EOY	87,472.6	104,043.3	16,570.7	18.9%
Weighting Factor	17.8%	17.8%		
Wtd. Avg. Plant in Service	83,968.1	96,663.9	12,695.8	15.1%

TABLE 7-2

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

PLANT IN SERVICE

ESCALATION YEAR 2012

Item	DRA	CWS	CWS exceeds DRA Amount	%
	(Thousands of $)			
Plant in Service - BOY	87,472.6	104,043.3	16,570.7	18.9%
Additions				
Gross Additions	3,027.6	9,323.9	6,296.3	208.0%
Capitalized Interest	71.7	226.5	154.8	215.9%
Cap. Int. Plant Equiv CWIP	0.0	0.0	0.0	0.0%
Retirements	(159.2)	(159.2)	0.0	0.0%
Net Additions	2,940.1	9,391.2	6451.1	219.4%
Adjustments				
Gen. Plant allocated to contractors	(442.8)	(583.2)	-140.4	31.7%
Historic Capitalized Interest	(88.5)	(88.5)	0.0	0.0%
Plant in Service - EOY	90,412.7	113,434.5	23,021.8	25.5%
Weighting Factor	17.8%	17.8%		
Wtd. Avg. Plant in Service	87,466.0	105,047.8	17,581.8	20.1%

CHAPTER 8: DEPRECIATION RESERVE AND DEPRECIATION EXPENSE

A. INTRODUCTION

This chapter presents DRA's analyses and recommendation on Depreciation for CWS' Bear Gulch District. Tables 8-1 and 8-2 show weighted average accumulated depreciation and amortization for Test Year 2011 and Escalation Year 2012.

B. SUMMARY OF RECOMMENDATIONS

Differences in DRA's and CWS' estimates are the result of different plant additions for the test year and the escalation year. These differences are discussed in Chapter 7, Utility Plant in Service.

C. DISCUSSION

CWS depreciation rates for components listed in the CPUC Uniform System of Accounts for Water Utilities are based on a "Depreciation Study as of December 31, 2006" prepared by AUS Consultants dated June 21, 2007. If the depreciation rates proposed in the study are used, instead of the depreciation rates adopted in D.06-08-011, the overall composite depreciation rate for the Bear Gulch District increases by 0.32% (from 2.54% to 2.86%) in Test Year 2011 and Escalation Year 2012.

DRA accepts the depreciation rates for accounts as provided by CWS, but recommends that DRA perform an audit of CWS' submitted Depreciation Study in the next General Rate Case. The Depreciation Study should use a 0% salvage value for small mains (<6" in diameter). This recommendation is consistent with

the procedure that CWS uses to replace these small mains, abandoning the old main in place, when it is replaced.[87]

Based on the annual depreciation rates for accounts as provided in CWS' Depreciation Study the CWS estimates of implicit composite depreciation rates are 2.86% for Test Year 2011 and for Escalation Year 2012. The DRA estimates of implicit composite depreciation rates are 2.87% for Test Year 2011 and 2.86% for Escalation Year 2012.[88] Differences between CWS and DRA estimates for composite depreciation rate are due to differences in Plant-in-Service estimates and subsequent differences in Beginning of Year Gross Depreciable Plant, and Depreciation Annual Accrual. Differences in Plant-in-Service estimates are discussed in Chapter 7.

D. CONCLUSION

DRA reviewed and accepts the methodologies outlined in CWS' Depreciation Study. DRA recommends an audit of CWS' Depreciation Study in the next GRC.

DRA recommends that the Commission adopt DRA's adjusted numbers for depreciation.

[87] For examples, as shown in Tab 55 of the 2009 Bakersfield District Project Justifications, the estimated cost of abandonment of 4" main is $0, this is also attached as Tab L in Appendix B to this report.

[88] Composite Depreciation Rates can be found in Workpaper 9-B2.

TABLE 8-1

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

DEPRECIATION RESERVE & EXPENSE

TEST YEAR 2011

Item	DRA	CWS	CWS exceeds DRA Amount	%
	(Thousands of $)			
Depreciation Reserve - BOY	28,198.7	28,358.4	159.7	0.6%
Accruals				
Transportation Equipment	47.0	58.7	11.7	24.9%
Contributed Plant	211.1	210.1	(1.0)	-0.5%
Allocated non-reg contracts	21.9	29.6	7.7	35.2%
Other Plant in Service	2,201.9	2,392.6	190.7	8.7%
Total Accruals	2,481.9	2,691.0	209.1	8.4%
Retirements	(197.3)	(197.3)	0.0	0.0%
Depreciation Reserve - EOY	30,272.2	30,642.0	369.8	1.2%
Weighting Factor	50%	50%		
Wtd. Avg. Depr. Reserve	29,235.5	29,500.2	264.8	0.9%

TABLE 8-2

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

DEPRECIATION RESERVE & EXPENSE

ESCALATION YEAR 2012

	Item	DRA	CWS	CWS exceeds DRA Amount	%
		(Thousands of $)			
	Depreciation Reserve - BOY	30,272.2	30,642.0	369.8	1.2%
	Accruals				
	Transportation Equipment	46.0	59.8	13.8	30.0%
	Contributed Plant	219.2	217.7	(1.5)	-0.7%
	Allocated non-reg contracts	22.4	29.8	7.4	33.0%
	Other Plant in Service	2,293.4	2,607.8	314.4	13.7%
	Total Accruals	2,581.0	2,915.1	334.1	12.9%
	Retirements	(205.1)	(205.1)	0.0	0.0%
	Depreciation Reserve - EOY	32,648.1	33,352.0	703.9	2.2%
	Weighting Factor	50%	50%		
1	Wtd. Avg. Depr. Reserve	31,350.6	31,888.2	537.6	1.7%

CHAPTER 9: RATEBASE

A. INTRODUCTION

DRA and CWS' estimates for Rate Base for Test Year 2011 and Escalation Year 2012 are discussed in this Chapter.

B. SUMMARY OF RECOMMENDATIONS

DRA recommends adoption of its estimates for: Plant in Service, Depreciation Reserve, and Rate Base.

C. DISCUSSION

Tables 9-1 & 9-2 show DRA's and CWS' estimates of Rate Base for Test Year 2011 and Escalation Year 2012. The significant differences between the Rate Base developed by DRA and CWS are due to the differences in the estimates for Weighted Average Plant in Service, Depreciation, Working Cash, and General Office Allocation.

D. NET-TO-GROSS MULTIPLIER

The net-to-gross multiplier represents the change in gross revenue required to produce a unit change in net revenue. Both DRA and CWS have calculated three multipliers which reflect: 1) the increase required under 100% equity-financing where State and Federal taxes are incurred; 2) the increase required under 100% debt financing where taxes are not incurred (identical to the increase necessary to offset expenses); and 3) the increase required for additions to ratebase, which incorporates the capital structure and financing costs of the utility.[89]

[89] As adopted in Commission Decision 09-05-019

DRA and CWS use similar methodologies in calculating the net-to-gross multipliers. Calculations are shown in Table 9-3 and results are presented below. In the calculations, DRA corrected the placement of a decimal in CWS' calculation of business license fees. Also, DRA's adjustment to the Domestic Production Activities Deduction (*see Chapter 5*) results in higher numbers than those calculated by CWS.

California Water Service Company
Bear Gulch
Net to Gross Multiplier

	CWS	DRA
100% Equity	**1.61633**	**1.69741**
100% Debt (expense)	**1.00866**	**1.00959**
Ratebase Additions	**1.33303**	**1.37675**

TABLE 9-1

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

WEIGHTED AVERAGE DEPRECIATED RATE BASE

TEST YEAR 2011

Item	DRA	CWS	CWS exceeds DRA Amount	%
	(Thousands of $)			
Wtd. Avg. Plant in Serv.	83,968.1	96,663.9	12,695.8	15.1%
Materials & Supplies	290.7	290.7	0.0	0.0%
Working Cash - Lead-Lag	72.4	452.8	380.4	525.1%
Amt withheld from Employees	(6.8)	(6.8)	0.0	0.0%
Wtd. Avg. Depr. Res.	(29,235.5)	(29,500.2)	(264.8)	0.9%
Interest Bearing CWIP	0.0	0.0	0.0	0.0%
Advances	1,153.4	1,153.4	0.0	0.0%
Contributions	5,091.0	5,088.7	(2.3)	0.0%
Reserved Amort. Intangibles	228.3	234.7	6.4	2.8%
Deferred Taxes	6,132.9	6,132.9	0.0	0.0%
Unamortized ITC	126.5	126.5	0.0	0.0%
General Office Alloc	2,189.3	2,189.3	0.0	0.0%
Taxes on - Advances	68.4	68.4	0.0	0.0%
Taxes on - CIAC	280.6	280.6	0.0	0.0%
Average Rate Base	44,895.2	57,702.5	12,807.4	28.5%
Interest Calculation:				
Avg Rate Base	44,895.2	56,965.8	12,070.7	26.9%
x Weighted Cost of Debt	3.16%	3.16%	0.0%	0%
Interest Expense	1,418.7	1,800.1	381.4	26.9%
less Cap. Interest	0.0	0.0	0.0	0.0%
Net Interest Expense	1,418.7	1,800.1	381.4	26.9%

TABLE 9-2

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

WEIGHTED AVERAGE DEPRECIATED RATE BASE

ESCALATION YEAR 2012

Item	DRA	CWS		CWS exceeds DRA Amount	%
	(Thousands of $)				
Wtd. Avg. Plant in Service	87,466.0	105,047.8		17,581.8	20.1%
Material & Supplies	290.7	290.7		0.0	0.0%
Working Cash - Lead-Lag	45.1	448.6		403.5	893.9%
Amt withheld from Employees	(6.8)	(6.8)		0.0	0.0%
Wtd. Avg. Depr. Reserve	(31,350.6)	(31,888.2)		(537.6)	1.7%
Interest Bearing CWIP	0.0	0.0		0.0	0.0%
Advances	1,087.7	1,087.7		0.0	0.0%
Contributions	5,170.4	5,169.3	12,943.0	(1.1)	0.0%
Reserved Amort. Intangibles	312.9	332.3		19.4	6.2%
Deferred Taxes	6,234.1	6,234.1		0.0	0.0%
Unamortized ITC	119.6	119.6		0.0	0.0%
General Office Alloc	2,124.1	2,124.1		0.0	0.0%
Taxes on - Advances	59.2	59.2		0.0	0.0%
Taxes on - CIAC	273.5	273.5	1065.2	0.0	0.0%
Average Rate Base	45,976.6	63,405.9		17,429.3	37.9%
Interest Calculation:					
Avg Rate Base	45,976.6	62,673.3		16,696.7	36.3%
x Weighted Cost of Debt	3.16%	3.16%		0.0%	0.0%
Interest Expense	1,452.9	1,980.5		527.6	36.3%
less Cap. Interest	0.0	0.0		0.0	0.0%
Net Interest Expense	1,452.9	1,980.5		527.6	36.3%

TABLE 9-3

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

NET-TO-GROSS MULTIPLIER

TEST YEAR 2011
AND ESCALATION YEAR 2012

Item	DRA	CWS
1) Uncollectibles %	0.09305%	0.09305%
2) 1-Uncoll (100%-line 1)	99.90695%	99.90695%
3) Franchise tax rate	0.76485%	0.76485%
4) Local Franchise (line 3*line 2)	0.76414%	0.76414%
5) Business license rate	0.09290%	0.00093%
6) Business license (line 5*line 2)	0.09281%	0.00093%
7) Subtotal (line 1+line 4+line 6)	0.95000%	0.85812%
8) 1-Subtotal (100%-line7)	99.05000%	99.14188%
9) CCFT (line 8 * 8.84%)	8.75602%	8.76414%
10) Domestic Production Activities Deduction *	0.63446%	8.92277%
11) FIT (line 8 minus line 9 minus line 10 * 35%)	31.38083%	28.50924%
12) Total taxes paid (ln 7+ln 9+ln 10)	41.08685%	38.13150%
13) Net after taxes (1-line 11)	58.91315%	61.86850%

Net-to-Gross Multiplier (1/line 12) = 1.69741 (DRA)
Net-to-Gross Multiplier (1/line 12) = 1.61633 (Utility)

* DRA - Line 8 minus Line 9 multiplied by 9% multiplied by percentage of Qualified Activities
CWS - only multiplies Line 8 by 9%

This net-to-gross multiplier is to be used for changes in net revenue attributable to rate of return changes only and not to be used for rate base offsets. The net-to-gross for rate base offsets is much lower because the interest payments for the debt portion of rate base increase is tax deductible.

CHAPTER 10: CUSTOMER SERVICE

A. INTRODUCTION

DRA has reviewed California Water Service Company's ("CWS'") filing, responses to DRA data requests, and data obtained from the Commission's Consumer Affairs Branch regarding customer complaints in the Bear Gulch District.

B. SUMMARY OF RECOMMENDATIONS

DRA finds CWS' customer service record satisfactory and the customer service process reasonable.

C. DISCUSSION

1) Customer calls and complaints

The Bear Gulch District office handled an average of 23,800 calls per year in the last 3 years. The customer service representatives ("CSR") in the district office handle all customer calls. When a customer calls the district office, the CSR logs the date and time of the call along with a description of the complaint into the Customer Service Information system. The majority of customer complaints are resolved the same day they are received. Billing questions make up a large portion of the calls received by the district office. The CSR tries to resolve the billing issue directly. However, if a resolution can not be reached, the Customer Services Manager in each district is empowered to make billing adjustments as needed.

All customer complaints filed with the Commission are sent to the CWS rates department and follow a different procedure than described above. The rates department contacts the district office to inform them of the complaint with the goal of resolving the issue within 7 days. The district office researches the complaint, contacts the customer to inform them of the investigations findings and works to reach a resolution. The district office then submits its findings and

resolution to CWS' rates department for review. CWS' rates department then contacts the Commission's Division of Water and Audits or the Consumer Affairs branch to present the complaint findings. Complaints filed by customers with the Commission since the last GRC were few in number. In general, most of the filed complaints were regarding billing, with a few concerning rates or shut off notices.

2) Water Quality complaints

CWS' records indicate that the number of water quality complaints have been low relative to the number of customers in the Bear Gulch District. An effective system is in place to receive and record customer complaints concerning water quality. Customer complaints regarding taste and odor are handled by a CSR who explains to the customer why those types of conditions occur. Other types of complaints, such as low pressure or the presence of sand in the water, require a serviceman to go out to the premises and investigate the complaint. When a service call is required, the CSR notifies the maintenance department. CWS assigns personnel to investigate the problem, notify the customer, and resolve the issue. The majority of these complaints are resolved by inspecting the premises. CWS tracks all water quality complaints in their system and records a monthly summary report.

Table 10-A shows water quality customer complaint data for the last three years. There are six categories for the different kinds of water quality complaints. These categories are defined as:

- Air - can be trapped in water causing a milky appearance which goes away when allowed to stand and the air goes to the surface;
- Dirty - can be discolored water or sand in the water from mainline flushing or a main break in the area;
- Noise - can be associated with the water system, such as wells turning on, or problem with the customer's internal plumbing;

- Pressure - can be too high or too low; and
- Taste or odor - can be stronger than usual from chlorine, or a musty odor the customer is not accustomed to.

Table 10-A

Bear Gulch District Customer Water Quality Complaints			
Type	2006	2007	2008
Air	0	0	0
Dirty water	26	20	13
Noise	6	7	0
Pressure	71	50	60
Sand	0	0	1
Taste/Odor	15	3	3
Total	118	80	77
Number of Customers	17,724	17,752	17,805
Total as % of Customers	0.7%	0.5%	0.4%

In 2008, there were 60 customer complaints regarding pressure. CWS states that the majority of the customer complaints regarding pressure were attributed to problems related to the customer's plumbing, such as service lines being clogged. Other pressure complaints related to lowered pressure resulting from inadequately sized mains for the demand placed on them. One of the factors leading to a higher than average number of pressure complaints is the larger number of pressure zones required to serve the hilly topography. These types of pressure zones are more difficult to operate and specific elevations within the zone have a large impact on the pressure experienced by customers.

D. CONCLUSION

DRA recommends the Commission find CWS' customer service to be satisfactory.

CHAPTER 11: RATE DESIGN

A. INTRODUCTION

In this GRC application (09-07-001), CWS requested changes to the non-residential rate design in Special Request #6, and requested changes to the residential rate design in Special Request #11. Thus, the scope of this chapter is limited to recommendations regarding:

1) The Water Revenue Adjustment Mechanism and Modified Cost Balancing Accounts ("WRAM/MCBA"),[90]
2) Impacts of the conservation rate designs to date
3) Impacts on Low Income customer disconnections, and
4) Low income rate assistance surcharges

B. SUMMARY OF RECOMMENDATIONS

1) a. WRAM/MCBA Should Ensure Ratepayers Do Not Bear the Full Burden of the Economic Downturn

DRA recommends that the Commission require CWS to modify the WRAM/MCBA so that it does not disproportionately disadvantage ratepayers compared to shareholders. The WRAM should no longer require ratepayers to pay the full difference between the authorized quantity revenue and actual quantity revenue. The Commission should modify the WRAM/MCBA so that if there are reductions in consumption, ratepayers and shareholders should split this difference equally. This will ensure that ratepayers and shareholders are proportionally affected when conservation rates are implemented.

1) b. WRAM/MCBA surcredits should be a flat amount applied to the service charge

When there is a combined over-collection in the WRAM/MCBA, the over-collection should be passed on to ratepayers through a flat surcredit on the service

[90] Other than recommendations regarding WRAM/MCBA in DRA's special request chapters.

charge. This change to the surcredit mechanism will ensure that water-conserving customers who use less water do not receive less surcredit than customers who use large quantities of water. This will enhance the conservation price signal.

2) Not Yet Enough Data to Determine Impacts of Conservation Rate Designs

This GRC application from CWS contains six months of consumption data after CWS implemented the rate design and WRAM/MCBA mechanism Trial Programs. Six months of consumption data is not long enough to draw conclusions about the impacts of the conservation rate designs. The Commission should evaluate the impacts of the conservation rate designs in CWS' next GRC.

3) The Commission should require CWS to monitor disconnections by month and communicate payment options to customers

The Commission should require CWS to continue to track the number of residential and LIRA customer disconnections per month. If the number of disconnections has increased, CWS should develop a low-cost customer communication plan to reduce the number of disconnections. In particular, CWS should place messaging in customers' bills and on its website explaining to customers the options that are available to them if they cannot pay their bills.

4) The Commission should authorize CWS to increase the surcharge for the low-income rate assistance program as necessary to continue to provide the benefit to qualifying customers

CWS states that it proposed to increase the surcharge to fund the low-income rate assistance ("LIRA") program.[91] DRA supports an increase in the surcharge to support the forecasted participation levels in the LIRA program.

C. DISCUSSION

1) a. WRAM/MCBA Should Ensure Ratepayers Do Not Bear the Full Burden of the Economic Downturn

When the Commission adopted the WRAM/MCBA decoupling mechanism for CWS, the concept of the mechanism was to ensure a proportional impact on the utility and ratepayers when CWS implemented conservation rates. DRA's settlement with CWS, adopted in D.08-02-036 states:

> "Parties agree that the desired outcome and purpose of using WRAMs and MCBAs is to ensure that the utility and ratepayers are proportionally affected when conservation rates are implemented.
>
> a. In the context of this agreement, a proportional impact means that, if consumption is over or under the forecasted level, the effect on either the utility or ratepayers (as a whole) should reflect that the costs or savings resulting from changes in consumption will be accounted for in a way such that neither the utility or ratepayers are harmed, or benefit, at the expense of the other party."[92]

Since it is too early to evaluate quantitative usage data on the impacts of the conservation rate designs,[93] it is difficult to determine how much sales have

[91] Report on the Results of Operation, July 1, 2009.

[92] Amended Settlement Agreement between The Utility Reform Network, The Division of Ratepayer Advocates, and California Water Service Company on WRAM & Conservation Rate Design Issues, p. 10, section X.2. Filed June 15, 2007, adopted in Decision 08-02-036.

[93] At the time CWS filed this GRC, there were only six months of usage data after implementation of the WRAM/MCBA and rate design Trial Programs, and CWS did not provide an analysis of this usage information to determine whether the utility and ratepayers are

(continued on next page)

decreased due to the effects of conservation oriented rates. But it is unreasonable to assume that all recorded decrease in sales was entirely due to conservation oriented rates and conservation programming, as it is certain that some portion of the decrease was due to the economic downturn and other factors. Yet, as a result of the WRAM/MCBA, ratepayers are currently bearing the full cost of the economic downturn. This issue must be addressed immediately. Therefore, until the impacts of conservation efforts can be better quantified, DRA recommends that the Commission modify the WRAM so that if there are reductions in consumption, rather than ratepayers being required to pay the full difference between the authorized quantity revenue and actual quantity revenue, ratepayers and shareholders split this difference equally. This will ensure that ratepayers and shareholders are proportionally affected under the WRAM/MCBA decoupling mechanism, when conservation rates are implemented in accordance with the settlement.[94]

This issue should be examined in the next GRC, when over three years of consumption information will be available after the implementation of the WRAM/MCBAs and conservation rates. However, it is clear at this time that the WRAM/MCBA mechanisms have led to an unintended consequence: the WRAM shields shareholders from all financial consequences of the severe economic downturn, while ratepayers bear the full cost of the economic downturn. This is an unintended consequence of the WRAM/MCBA trial program, not one of the goals of the program.[95]

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proportionally affected when conservation rates were implemented.

[94] Amended Settlement Agreement between The Utility Reform Network, The Division of Ratepayer Advocates, and California Water Service Company on WRAM & Conservation Rate Design Issues, p. 10, section X.2. Filed June 15, 2007, adopted in Decision 08-02-036.

[95] The goals of the WRAM/MCBA mechanism trial program were three-fold:

a)"Sever the relationship between sales and revenue to remove any disincentive for the utility to implement conservation rates and conservation programs

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While there is not currently a method available to apportion reductions in usage to each different cause – such as conservation and changes in economic conditions, it is clear that there are different factors that can affect water usage and each of them contribute to usage reductions. This is contrary to the WRAM/MCBA, which compensates CWS for all of the reductions in consumption, not just usage reductions from conservation. The Commission should modify the WRAM/MCBA mechanism so that it does not disproportionately disadvantage ratepayers compared to shareholders.

Further, the Commission specifically addressed the possible impact of a WRAM/MCBA for California American Water Company during an economic downturn in decision 08-06-002, p. 16, which stated:

> "One disparate impact that could occur in the Pilot Program period would be a severe economic downturn in one or more of the Los Angeles service areas that causes a significant decrease in revenues. This could occur from a high rate of home foreclosures and/or business slowdowns or shutdowns. We find this would clearly be a disparate impact as the WRAM mechanism would shield shareholders from all financial consequences of the economic downturn while requiring ratepayers to bear the full cost. Since Cal-Am will be tracking sales levels by customer class and service area, any disparate impact can be quickly seen and addressed."

CWS tracks sales levels by customer class and service area; and it is possible to calculate and graph changes in consumption in different classes and service areas. However, it is much more complex to determine or even speculate about the reasons for the changes in consumption. Especially because of the

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b)Ensure cost savings resulting from conservation are passed on to ratepayers.

c)Reduce overall water consumption by Cal Water ratepayers." (see the Amended Settlement Agreement between The Utility Reform Network, The Division of Ratepayer Advocates, and California Water Service Company on WRAM & Conservation Rate Design Issues, p. 8, section VI.1. Filed June 15, 2007, adopted in Decision 08-02-036).

significant economic downturn in recent years, that happens to coincide with implementation of increasing block rates, makes it difficult to draw conclusions about the reasons for any changing consumption patterns. Also, all CWS' districts under-collected revenue in the WRAM account during July – December 2008, except Bakersfield, King City, and Palos Verdes.[96] This is an indication that sales were lower than forecasted for almost all districts during this timeframe.

The WRAM should no longer require ratepayers to pay the full difference between the authorized quantity revenue and actual quantity revenue. The Commission should modify the WRAM/MCBA so that ratepayers and shareholders split this difference equally. This will ensure that ratepayers and shareholders are proportionally affected when conservation rates are implemented.

1) b. WRAM/MCBA Sur-credits Should Be a Flat Amount Applied to the Service Charge

When there is a combined under-collection in the WRAM/MCBA, this should be recovered from ratepayers through volumetric surcharges, in accordance with Decision 08-02-036. This maintains the conservation price signals of the surcharge because customers who use more water pay a larger portion of the surcharge. However, when there is a combined over-collection in the WRAM/MCBA, this should be passed on to ratepayers through a flat surcredit on the service charge. This change to the surcredit mechanism will ensure that water-conserving customers who use less water do not receive less surcredit than customers who use large quantities of water. Furthermore, this will also enhance the conservation price signal.

This recommendation is important in light of the first six months of WRAM/MCBA and Rate Design Trial Program implementation where the over and under-collections in the net balance of the WRAM/MCBA typically were far

[96] CWS WRAM/MCBA report to the Division of Water and Audits, March 2009

greater than the 2.5%[97] trigger. In fact these balances were 10% or greater in seven districts, and were between 5% and 10% in another seven districts.[98]

2) Not Yet Enough Data to Determine Impacts of Conservation Rate Designs

DRA and CWS reached a settlement agreement on rate design and revenue decoupling on April 23, 2007, and amended the settlement on June 15, 2007. The Commission ultimately adopted the settlement on February 28, 2008 in decision 08-02-036, and CWS had 90 days after the Commission decision adopting the settlement before the Trial Program became effective. CWS implemented the Trial Program, including the WRAM/MCBAs and conservation rate designs, via Advice Letter 1855, which became effective on July 1, 2008. CWS filed this GRC application in July 2009, and included data through December 2008. Thus, this GRC contains six months of consumption data after CWS implemented the WRAM/MCBA mechanisms. Six months of consumption data is not long enough to draw conclusions about the impacts of the conservation rate designs.[99]

3) CWS should track low income disconnections on a monthly basis and provide this information in its annual report to the Commission on the WRAM/MCBA balances

Ordering Paragraph 6 from the Phase 1A Decision 08-02-036 from the conservation OII (I.07-01-022) ("OP6") requires CWS to provide data related to the implementation of the conservation rate design trial programs. Specifically, OP6 states:

> "6. Suburban, Park, and Cal Water shall provide the following information in their next general rate case: monthly or bimonthly (depending upon the billing

[97] The trigger is "2.5% of the district's total recorded revenue requirement for the prior calendar year" (see Amended Settlement Agreement between The Utility Reform Network, The Division of Ratepayer Advocates, and California Water Service Company on WRAM & Conservation Rate Design Issues, Section IX 3) d., Filed June 15, 2007, adopted in Decision 08-02-036.

[98] See CWS WRAM/MCBA report to the Division of Water and Audits, March 2009.

[99] See Special Request #11 for further discussion.

cycle) … increase or decrease in disconnecting low-income program participants for nonpayment by district after adoption of conservation rate designs; increase or decrease in low-income program participation by district after adoption of conservation rate designs; increase or decrease in residential disconnections for nonpayment by district after adoption of conservation rate designs…."

In this GRC application, CWS provided some of the information required in this Ordering Paragraph.[100] In particular, CWS provided information on customer disconnections for both residential and LIRA customer groups for the firs six months of Trial Program implementation between July 1, 2008 and December 31, 2008. However, this data incorrectly "double-counted" low income customer disconnections.[101] CWS provided corrected data for July 2008 through July 2009. However, CWS did not yet provide information about customer disconnections prior to July 2008.[102] In order for the Commission to assess the "increase or decrease" in low-income disconnections when CWS implemented the conservation rate design and WRAM/MCBA Trial Programs, pursuant to the above Ordering Paragraph, data on customer disconnections from before and after the implementation of the conservation rate designs must be compared. Since CWS only provided information from after the implementation of conservation

[100] Prepared Testimony of David Morse, p. 28 – 31.

[101] Email from CWS (Tu Rash), on 1/13/2010, states regarding the query Cal Water originally ran for Dave Morse "in effect that query double counted the number of LIRA customers."

[102] DRA requested information on residential and LIRA customer disconnections from July 2007 through July 2009 in LWA-5 on 12/22/09, and CWS provided an initial response on 12/31/09, but it did not correspond to the numbers in David Morse' testimony, so CWS provided a revised response on 1/5/2010, but this still did not correspond to the numbers in David Morse' testimony. CWS provided a further revised response on 1/13/2010, but this only provided data from 2008-2009. At the time DRA had to finalize this testimony, it had not yet received final numbers for residential and LIRA customer disconnections from July 2007 through 2009, although DRA is confident CWS would have provided the information to comply with this ordering paragraph had there been unlimited time.

rate designs, this is not in compliance with OP 6. DRA believes CWS intended to provide the correct information and CWS should provide this information in its rebuttal testimony so that the Commission can consider it in this proceeding.

On a going forward basis, the Commission should require CWS to continue to track the number of residential and LIRA customer disconnections per month and report this information in the annual report that CWS submits to the Commission by March 31 each year regarding WRAM/MCBA balances.[103] If the number of disconnections has increased, CWS should develop and implement a low-cost customer communication plan to reduce the number of disconnections. In particular, CWS should place messaging on customer bills and on CWS' website explaining to customers the options that are available to them if they cannot pay their bills. For example, PG&E has a message on its website that says:

> "We Know Times Are Tough.
> If you or someone you know is having trouble paying your bill, we can help. Please call us today at 1-800-743-5000 so we can discuss program options and payment arrangements that work for you."[104]

Another example is San Diego Gas and Electric Company, which has messaging on its website that provides a rotational link to "Need Extra Help With Your Bill? Learn about available assistance" and "Get extra help with your bill."[105]

4) The Commission should authorize CWS to increase the surcharge for the low-income rate assistance program as necessary to continue the benefit for qualifying customers

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[103] Pursuant to "Amended Settlement Agreement between The Utility Reform Network, The Division of Ratepayer Advocates, and California Water Service Company on WRAM & Conservation Rate Design Issues," section IX 3), Filed June 15, 2007, adopted in Decision 08-02-036.

[104] http://www.pge.com/myhome/ (accessed 1/28/2010).

[105] http://www.sdge.com/index/ (accessed 1/28/2010).

CWS states that it proposed to increase the surcharge to fund the low-income rate assistance ("LIRA") program.[106] The Commission authorized the LIRA program in D.06-11-053, and it provides a 50% discount on the service charge to qualifying households. DRA supports the continuation of the LIRA program as authorized in D.06-11-053. To the extent that an increase in the surcharge is necessary to support the LIRA program at forecasted participation levels, the Commission should authorize the increase in the surcharge. DRA notes that this surcharge is combined with the surcharge for the Rate Support Fund ("RSF") and that CWS' requested increase from $0.009 to $0.015 per ccf[107] also includes the additional funding to support CWS' increases in the RSF subsidies. For this reason, the required increase in the surcharge to support only the LIRA program should be lower than $0.015 per ccf and should be calculated based upon the final revenue requirement in this case as well as the adopted rate of participation in the LIRA program.

D. CONCLUSION

The Commission should adopt the recommendations on rate design and revenue decoupling included in this chapter.

[106] Report on the Results of Operation, July 1, 2009, Chapter 12 "Present and Requested Tariffs" states that customers pay a surcharge of $0.009 per Ccf to fund the program and that CWS proposes to increase the surcharge to $0.015 per Ccf.

[107] Additional Prepared Testimony of Thomas Smegal, Special Request 11, p. 15, lines 21-22.

CHAPTER 12: WATER QUALITY

A. INTRODUCTION

The Rate Case Plan requires water utilities to submit information about water quality in their GRC applications. This Chapter presents DRA's review of water quality submittals by California Water Service Company ("CWS") for the Bear Gulch District and CWS' response to DRA's data request.

The California Department of Public Health ("CDPH") is the primary agency responsible for ensuring that the water provided to the public by the District is safe for consumption. DRA reviewed the most recent CDPH inspection report, the District's response to the report, and the CDPH's response to DRA's inquiry on the District's water quality issues and compliance status.

B. SUMMARY OF RECOMMENDATIONS

Based upon the information provided by the company and by the CDPH, CWS' Bear Gulch District appears to be in compliance with all applicable water quality standards and requirements. Exceptions if any are noted below.

C. DISCUSSION

The Bear Gulch District's water production consists of purchased treated water from the San Francisco Public Utilities Commission ("SFPUC") and its local surface water supply. Its surface water treatment plant treats water from the Bear Gulch Reservoir and produces about 472 million gallons per year, or about 10% of the District's water supply requirement.

In 2009, the District acquired Skyline County Water District, which has about 470 service connections and receives 100% of its water from a direct

connection with the SFPUC. CWS does not anticipate additional water quality issues as a result of this acquisition.[108]

The District is also acquiring Woodside Mutual Water Company ("Woodside") which has about 45 service connections and receives its water from the Bear Gulch District. Lead contamination is an issue in Woodside. To address this problem, CWS has proposed injection of corrosion control chemical treatment, which is accepted by the County of San Mateo Health Department.[109]

Except for the above, the District has not exceeded any primary or secondary Maximum Contaminant Levels ("MCLs") since the last general rate review.

CDPH conducted a system sanitary inspection and issued its Sanitary Inspection Report on September 12, 2008. CWS states that it has satisfied all compliance actions with the exception of the submission of the watershed sanitary survey. CWS reports that field work has been performed and a provisional re-write of the overall Bear Gulch Operations Plan will be necessary to reflect all of the operational changes.[110]

The CDPH, in response to DRA's inquiry, confirms that the District is in compliance with all applicable water standards. The CDPH also adds that the current treatment plant is in need of upgrades for optimization of the operation and water quality, specifically with total organic carbon removal, algae and disinfection.

[108] CWS' response to DRA's data request PPM-001, Item 3a.
[109] December 4, 2008 letter from County of San Mateo Health Department to CWS.
[110] CWS' response to DRA's data request PPM-001, Item 3.d.

D. CONCLUSION

Based on the information received, it appears that CWS' Bear Gulch District is in compliance with all applicable water quality standards and requirements and is addressing issues raised by the CDPH and the local health agency.

CHAPTER 13: STEP RATE INCREASE

A. FIRST ESCALATION YEAR

On or after November 1, 2011, the Commission shall authorize CWS to file a Tier 1 advice letter, with appropriate supporting workpapers, requesting the step rate increase for 2012 or to file a lesser increase in the event that the rate of return on rate base, adjusted to reflect the rates then in effect and normal ratemaking adjustments for the 12 months ending September 30, 2011, exceeds the lesser of (a) the rate of return found reasonable by the Commission for CWS for the corresponding period in the most recent rate decision or (b) the rate of return found reasonable in this case. This filing should comply with General Order 96-B.

The Commission's Water Division ("Water Division") should review the requested step rates to determine their conformity with this order, and the requested step rates should go into effect upon the Water Division's determination of compliance. The Water Division should inform the Commission if it finds that the proposed rates do not comply with this Decision. The Commission may then modify the increase. The effective date of the revised tariff schedule should be no earlier than January 1, 2012. The revised schedules should apply to service rendered on and after their effective date. Should a rate decrease be in order, the rates should become effective on the filing date.

B. SECOND ESCALATION YEAR

For the second year, the Commission should grant an attrition adjustment for the revenue requirement increases attributable to expense increases due to inflation and rate base increases that are not offset by revenue increases. The revenue changes shall be calculated by multiplying forecasted inflation rate and operational attrition plus financial attrition times adopted rate base in 2012 times the net-to-gross multiplier.

C. ESCALATION YEARS INCREASES

The table below shows the Summaries of Earnings for Escalation Years 2012 and 2013. To obtain the increases in these years, D. 04-06-018 and D. 07-05-062 require water utilities to file an Advice Letter 45 days prior to the start of the year showing all calculations supporting their requested increases.

The revenues shown in Table 12-1 are for illustration purposes and the actual increases would be authorized only after approval of the utility's advice letter.

TABLE 13-1

SUMMARY OF EARNINGS

CALIFORNIA WATER SERVICE COMPANY
BEAR GULCH DISTRICT

Item	DRA 2011 (Thousands of $)	DRA 2012	% increase	
Operating revenues	27,497.9	28,217.7	2.6% Esc. Factor	
Operation & Maintenance	14,275.1	14,646.2	2.6%	1.026
Administrative & General	1,683.4	1,723.8	2.4%	1.024
G.O. Prorated Expense	2,687.4	2,757.3	2.6%	1.026
Depreciation & Amortization	2,293.4	2,353.0	2.6%	1.026
Taxes other than income	872.2	894.9	2.6%	1.026
State Corp. Franchise Tax	306.3	320.1	4.5%	
Federal Income Tax	1,435.8	1,485.2	3.4%	
Total operating expenses	23,553.6	24,180.6	2.7%	
Net operating revenue	3,944.3	4,037.2	2.4%	
Rate base	45,971.0	47,053.2	2.4%	
Return on rate base	8.58%	8.58%	0.0%	

APPENDIX A

QUALIFICATIONS AND PREPARED TESTIMONY

QUALIFICATIONS AND PREPARED TESTIMONY
OF
PATRICK E. HOGLUND

Q1. Please state your name and business address.

A1. My name is Patrick E. Hoglund. My business address is 505 Van Ness Avenue, San Francisco, California.

Q2. By whom are you employed and in what capacity?

A2. I am employed by the California Public Utilities Commission – Division of Ratepayer Advocates (DRA) Water Branch - as a Senior Utilities Engineer.

Q3. Please briefly describe your educational background and work experience.

A3. I am a graduate of the University of California, Berkeley, with a Bachelor of Science Degree in Industrial Engineering and Operations Research. I am also a graduate of the University of Rochester, William E. Simon School of Business with a Master of Business Administration Degree with concentrations in Finance and Corporate Accounting. I am a licensed professional Industrial Engineer.

I have been employed by the California Public Utilities Commission since 2005. Currently I work on Class A water General Rate Cases. From July 1999 through August 2004, I was a Senior Rates Analyst at Pacific Gas and Electric Company, where I worked on a variety of revenue requirements issues related to natural gas. From 1990 through 1997, I was employed by the California Public Utilities Commission. During this time I worked on small water utility rate cases, large water utility rates cases, and also worked in the Telecommunications and Energy Branches of the former Commission Advisory and Compliance Division, as well as in DRA.

Q4. What are your responsibilities in this proceeding?

A4. I am the Co-Project Manager for this proceeding with overall responsibility for twelve CWS Districts: Bear Gulch, Chico, Dixon, Livermore, Los Altos, Marysville, Mid-Peninsula, Oroville, Redwood Valley, South San Francisco, Stockton, and Willows. I am also responsible for the Executive Summary, Chapter 1-Overview and Policy, and Chapter 13-Step Rate Increase of the district reports.

Q5. Does this conclude your prepared testimony?

A5. Yes, it does.

QUALIFICATIONS AND PREPARED TESTIMONY
OF
LISA BILIR

Q.1 Please state your name, business address, and position with the California Public Utilities Commission (Commission).

A.1 My name is Lisa Bilir and my business address is 505 Van Ness Avenue, San Francisco, California, 94102. I am a Public Utilities Regulatory Analyst V in the Water Branch of the Division of Ratepayer Advocates.

Q.2 Please summarize your education background and professional experience.

A.2 I received my Bachelor of Science degree in Biological Sciences from Stanford University in 2001 and a Master of Public Policy from The Goldman School of Public Policy at U.C. Berkeley in 2007.

From August 2006 to June 2007 I worked in the Water Branch of DRA as a graduate student intern. I have been a full-time staff member in DRA since October 2007. Since then I completed a settlement with California-American Water's (CAW) Los Angeles district and the City of Duarte on conservation rate design and revenue decoupling issues. I was DRA's project manager for CAW's conservation application for the Monterey District, where I completed settlements with CAW and Monterey Peninsula Water Management District on conservation programs and plans. I also submitted testimony in CAW's Monterey District GRC regarding conservation rate design and revenue decoupling issues and reached a settlement on that issue. In addition, I completed a settlement with San Gabriel Valley Water Company (SGVWC) in May 2008 regarding an interim budget and funding mechanism for conservation programs in its Fontana Water Company Division. I am DRA's project manager for SGVWC's conservation application A.08-09-008 and submitted testimony regarding rate design, revenue decoupling and reporting requirements in that proceeding.

Q.3 What is your responsibility in this proceeding?

A.3 I am responsible for the chapters on Rate Design, and Special Requests 1, 6, 11, 12, 13, 15, and 29 and I am a co-author for the chapters on Revenue and Special Request #28. For the Revenue chapters, I am primarily responsible for the number of customer and revenue calculations; for the Special Request #28, I am responsible for the portion of the chapter other than the Introduction and discussion of an OIR.

Q.4 Does this conclude your prepared direct testimony?

A.4 Yes, it does.

QUALIFICATIONS AND PREPARED TESTIMONY
OF
ZACHARY BURT

Q.1 Please state your name, business address, and position with the California Public Utilities Commission (Commission).

A.1 My name is Zachary Burt and my business address is 505 Van Ness Avenue, San Francisco, CA 94102. I am an intern in the Water Branch of the Division of Ratepayer Advocates.

Q.2 Please summarize your education background and professional experience.

A.2 I received a dual bachelor's degree in Economics and Chemistry from the University of California at Berkeley in 2001. I received a Master's of Science from the Energy and Resources Group at U.C. Berkeley in May, 2009, and am continuing on to pursue a PhD in the same program as of Fall 2009. My program of study focuses on the economics of water, including demand management, conservation pricing and water services treatment and provision. In DRA, I analyzed and made recommendations on Golden State Water Company's conservation rate designs and reached a settlement with Golden State Water Company in that case. I also wrote testimony and testified orally on San Gabriel Valley Water Company's conservation rate design proposals.

Q.3 What is your responsibility in this proceeding?

A.3 I am a co-author of Chapter 2 on Revenues, and am primarily responsible for the sections regarding sales forecasts.

Q.4 Does this conclude your prepared direct testimony?

A.4 Yes, it does.

QUALIFICATIONS AND PREPARED TESTIMONY
OF
PAT MA

Q1. Please state your name, business address, and position with the California Public Utilities Commission (Commission).

A1. My name is Pat Ma and my business address is 505 Van Ness Avenue, San Francisco, California 94102. I am a Utilities Engineer in the Water Branch of the Division of Ratepayer Advocates (DRA).

Q2. Please summarize your education background and professional experience.

A2. I received a Bachelor of Science Degree in Industrial Engineering with a concentration in Management from San Jose State University in 1986. In December 2008, I rejoined the Commission as a Utilities Engineer in the DRA's Water Branch. My previous professional position was as a Senior Utilities Engineer at the Commission, where I worked from 1986 to 1999 in transportation, telecommunications, energy and water areas. I received my Professional Engineer License in Industrial Engineering in the State of California in 1989 and also worked briefly for the U.S. EPA, Region 9 as an Environmental Engineer in 1989.

Q3. What is your responsibility in this proceeding?

A3. I am a witness for this proceeding and responsible for Chapters 3 - Operations and Maintenance Expenses for California Water Service Company's Bear Gulch, Livermore, Los Altos, Mid Peninsula and South San Francisco districts and Chapter 12 - Water Quality for its twelve northern districts.

Q4. Does this conclude your prepared direct testimony?

A4. Yes, it does.

QUALIFICATIONS AND PREPARED TESTIMONY
OF
CLEASON D. WILLIS

Q1. Please state your name, business address, and position with the California Public Utilities Commission (Commission).

A1. My name is Cleason D. Willis and my business address is 505 Van Ness Avenue, San Francisco, California 94102. I am a Regulator Analyst in the Water Branch of the Division of Ratepayer Advocates (DRA).

Q2. Please summarize your education background and professional experience.

A2. I graduated from the California State University of Hayward with a Bachelor of Science Degree in Business Administration and Finance, and a Masters of Science Degree in Public Administration and Management. After graduation I joined the California Public Utilities Commission. Since that time I have performed economic and reasonableness analysis for various electrical, gas, water, and telecommunications operations. I have written reports and testified regarding the validity of my findings and recommendations concerning my analysis for various utility proceedings.

Q3. What is your responsibility in this proceeding?

A3. I am responsible for Chapter 4 - Administrative and General Expenses for the following California Water Service Company's northern districts: Bear Gulch, Chico, Dixon, Livermore, Los Altos, Marysville, Mid-Peninsula, Oroville, Redwood Valley, South San Francisco, Stockton, and Willows.

Q4. Does this conclude your prepared direct testimony?

A4. Yes, it does.

QUALIFICATIONS AND PREPARED TESTIMONY
OF
K. JERRY OH

Q1. Please state your name, business address, and position with the California Public Utilities Commission (Commission).

A1. My name is K. Jerry Oh and my business address is 505 Van Ness Avenue, San Francisco, California. I am a Financial Examiner IV in the Water Branch of the Division of Ratepayer Advocates.

Q2. Please summarize your education background.

A2. I graduated from the University of California at Los Angeles, with a Bachelor of Arts in Business Economics.

Q3. Briefly describe your professional experience.

A3. I have been employed by the Commission since February 2000. While at the CPUC, I have conducted audits of water and energy utilities, managed contract auditors, and reviewed energy procurement costs. For the past three years, I have worked on different areas of a water utility's GRC.

Q4. What is your responsibility in this proceeding?

A4. I am responsible for review of the Affiliate Transaction of CWS, General Office Cost Allocation, Taxes for the Bear Gulch, Chico, Dixon, Livermore, Los Altos, Marysville, Mid-Peninsula, South San Francisco, Oroville, Redwood Valley - Coast Springs, Redwood Valley - Lucerne, Redwood Valley - Unified, Stockton, and Willows districts, and Special Request 3.

Q5. Does this conclude your prepared direct testimony?

A5. Yes, it does.

QUALIFICATIONS AND PREPARED TESTIMONY
OF
ISAIAH LARSEN

Q1. Please state your name, business address and position with the California Public Utilities Commission (Commission).

A1. My name is Isaiah Larsen. My business address is 505 Van Ness Avenue, San Francisco, California 94102. My job title is Utilities Engineer and I work in the Water Branch of the Division of Ratepayer Advocates.

Q2. Please summarize your educational background and work experience.

A2. In December 2007, I completed my M.S. in Environmental Engineering at the University of California, Berkeley. My undergraduate degree is in Materials Science and Engineering from the University of California, Los Angeles.

I have been employed as a student intern at both Lawrence Livermore National Laboratory (LLNL) and Sandia National Laboratories in Livermore, CA. While at LLNL, I designed and fabricated micro-fluidic hydrogen fuel cells for portable power applications.

As a graduate student intern with the Water Branch, my work included a settlement between DRA and Del Oro Water Company on the Regional Intertie Project. I have been a full-time staff member of DRA since July 2008. I have prepared written and oral testimony for the following proceedings: the conservation and rationing programs in Phase 2 of Cal Am's Conservation A.07-12-010, unaccounted for water in Cal Am's Monterey GRC, A.08-01-027, and utility plant in service and conservation for the SJWC GRC, A.09-01-009.

Q3. What is your responsibility in this proceeding?

A3. I am the witness responsible for Utility Plant in Service testimony for Willows, Marysville, Redwood Valley, Dixon, Stockton, Livermore, Bear Gulch, Los Altos, Mid-Peninsula, and South San Francisco. I am responsible for Depreciation, Working Cash and Lead-Lag testimony for these districts. I am also responsible for Special Request 20.

Q4. Does that complete your prepared direct testimony in this proceeding?

A4. Yes.

QUALIFICATIONS AND PREPARED TESTIMONY
OF
RICHARD RAUSCHMEIER

Q1. Please state your name, business address, and position with the California Public Utilities Commission (Commission).

A1. My name is Richard Rauschmeier and my business address is 505 Van Ness Avenue, San Francisco, California. I am an Auditor in the Water Branch of the Division of Ratepayer Advocates.

Q2. Please summarize your educational background.

A2. I graduated from The Johns Hopkins University with a Bachelor's degree in Environmental Science, concentrating in chemistry and water treatment. In 2000, I earned a Masters of Science from Purdue University. In 2008, I completed training and successful examination for certification as both a Water Treatment and Distribution Operator in California under the State's Department of Public Health.

Q3. Briefly describe your professional experience.

A3. For more than 10 years, I have worked as an employee or consultant assisting organizations develop efficient and effective business policies and practices. In December of 2008, I joined the California Public Utilities Commission as an Auditor.

Q4. What is your responsibility in this proceeding?

A4. I am sponsoring the calculation of Net-To-Gross Multipliers of all districts (see Chapter 9), as well as, DRA's testimony in Chapter 5 (Taxes Other Than Income) and Chapter 6 (Income Taxes) for the 12 districts (Antelope Valley, Bakersfield, Dominguez, East Los Angeles, Hermosa-Redondo, Kern River, King City, Palos Verdes, Salinas, Selma, Visalia, and Westlake).

Q5. Does this conclude your prepared direct testimony?

A5. Yes, it does.

QUALIFICATIONS AND PREPARED TESTIMONY
OF
TONI CANOVA

Q1. Please state your name, business address, and position with the California Public Utilities Commission (Commission).

A1. My name is Toni Canova and my business address is 505 Van Ness Avenue, San Francisco, California. I am a Public Utility Regulatory Analyst in the Water Branch of the Division of Ratepayer Advocates.

Q2. Please summarize your education background and professional experience.

A2. I graduated from The Evergreen State College in Olympia, Washington, with a Bachelor of Arts Degree in Environmental Studies. I have been employed by the Commission for over six years. I have testified before the Commission in General Rate Cases involving several Class A water utilities including California Water Service Company and Park Water Company. Previously, I was employed by the State of Washington's Department of Ecology for 10 years.

Q3. What is your responsibility in this proceeding?

A3. I am responsible for testimony in Chapter 10 – Customer Service, and for the Result of Operations tables for the twelve northern districts.

Q4. Does this conclude your prepared direct testimony?

A4. Yes, it does.